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Matthiessen & Hegeler Zinc Co.
ILO 000064782
SF/HRS

CERCLA
Integrated Site Assessment

Illinois Environmental Protection Agency

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Confidential material may be enclosed.

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1. INTRODUCTION

On September 21, 1993 the Illinois Environmental Protection Agency's (IEPA) Site Assessment Unit was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a CERCLA Integrated Site Assessment inspection of the Matthiessen and Hegeler Zinc Company site located in La Salle, Illinois.

The site was initially placed on CERCLIS (Comprehensive Environmental Response, Compensation and Liability Act Information System) in September, 1993 as a result of a request for discovery action initiated by the State of Illinois. This action was taken when during a CERCLA Screening Site Inspection of the Carus Chemical Company site in November, 1991 by the Illinois Environmental Protection Agency it was noted that the area contained large piles of slag materials. Later examination of aerial photographs, Sanborn fire insurance maps and historical plat maps indicated that the area was once a zinc smelting facility and should be evaluated for any possible adverse impact the company may have had on the environment. The historical investigation revealed that the facility initially being evaluated is on a portion of property that was once used by the Matthiessen and Hegeler Zinc Company.

The site received its initial CERCLA evaluation in the form of a Preliminary Assessment (PA) report that was completed by Robert Casper from the Illinois EPA in November,

1993. In December, 1993, the Illinois EPA's Site Assessment Unit prepared and submitted to the Region V offices of the U.S. Environmental Protection Agency an Integrated Site Assessment inspection work plan for the Matthiessen and Hegeler Company site. The sampling portion of the Integrated Site Assessment inspection was conducted on December 14 and 15, 1993 when the sampling team collected a total of four sediment and eight soil samples analyzed for full organic and inorganic Target Compound List substances and thirteen residential samples analyzed for the full inorganic Target Compound List only.

The purpose of the Integrated Assessment has been developed from USEPA directive and guidance information which outlines Site Assessment program strategies. The information states:

> The Integrated Assessment will be conducted to: 1) Collect data which would satisfy both site assessment and remedial program activities. This would incorporate hazardous waste, surface water, air and groundwater concerns. 2) The objectives of the assessment are to determine whether time or non time critical removals are warranted and to determine whether the site is National Priorities List (NPL) caliber. If the determination is made that the site is NPL caliber, additional data will likely be needed to complete the assessment. A sampling plan to accommodate removal and site assessment needs, as well as initial remedial needs should be developed. 3) Determination of site sampling needs will be accomplished with an understanding to assure adequate data for the removal assessment and the preparation of the Hazardous Ranking System (HRS) score as well as the need for possible initial sampling for the remedial investigation. Based on the preliminary HRS score and removal program information, the site will then either be designated as No Further Action (NFA) or carried forward as an NPL listing candidate. Sites that are designated NFA or deferred to other statutes are not candidates for an Integrated Assessment. 4) Upon completion of the data gathering, there will be a

determination of whether the site should be forwarded within the Superfund process, either through the remedial or removal programs.

The initial assessment of a site as it enters the Superfund program within Region V will be conducted by either a Regional On-Scene Coordinator (OSC) and a Site Assessment Manager (SAM) or by State personnel. An OSC and a SAM will be assigned for all new sites entering the Regional Superfund Program. If an emergency is found to occur, USEPA or state emergency removal staff will be immediately contacted for action. If the site needs further Superfund activities, a Site Assessment Team (SAT), comprised of the State, the SAM, the Regional Project Manager (RPM) and an OSC will be formed. As necessary, additional data can be generated for the SAT to make a recommendation to the Regional Decision Team (RDT) for further possible action.

The Integrated Assessment will address all the data requirements of the revised HRS using field screening and NPL level Data Quality Objectives (DQO's) prior to data collection. It will also provide needed data in a format to support remedial investigation workplan development. Only sites that appear to score high enough for NPL listing and that have not been deferred to another authority will receive an Integrated Assessment.

The Region V offices of the U.S. EPA have also requested that the Illinois Environmental Protection Agency identify sites during the Integrated Site Assessment inspection that may require removal action to remediate an immediate human health and/or environmental threat. A U.S. EPA Removal Integrated Site Evaluation (RISE) form pertaining to site specific operations and waste characteristics was completed and forwarded to U.S. EPA Regional offices. Upon review U.S. EPA program managers assigned On-Scene Coordinator, OSC, Don Bruce, to Matthiessen and Hegeler Zinc Company.

Substances documented to be present in concentrations greater than established Removal Action Levels (RAL's)

include: pentachlorophenol (at a concentration of 36,000 ppb in sample X102), arsenic at a concentration of up to 110 ppm found on the Matthiessen and Hegeler Zinc Company property and at a concentration up to 26.1 ppm in a residential yard, cadmium at a concentration of 1,320 ppm onsite and 110 ppm at a private residence, and lead at a concentration of 4,310 ppm onsite and 1,030 ppm in the yard of a private residence. The metals arsenic, cadmium and lead were also found at lower concentration at other locations on and off the Matthiessen and Hegeler property. Samples collected outside the boundaries of the company were collected at a depth of zero to one inch.

Based on the information gathered over the course of the formal Integrated Assessment and a conversation with the USEPA OSC, it has been concluded that the Matthiessen and Hegeler Zinc Company site does not pose enough of a threat to human health and/or the environment to warrant a time critical CERCLA removal action. The site may, however be a candidate for an early action non-time critical removal action in the future. It should be stressed that the CERCLA removal status can be re-evaluated at such time that additional information suggest that the site may be posing a threat to human health and/or the environment.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section includes information obtained over the course of the formal CERCLA Integrated Site Assessment inspection investigation and previous Illinois Environmental Protection Agency activities involving this site.

2.2 SITE DESCRIPTION

Matthiessen and Hegeler Zinc Company is an inactive primary zinc smeltering and rolling site located on the east side of La Salle (population 9,717), La Salle County, Illinois. The site consists of approximately 160 acres and in the southern portion of the property are two active businesses. La Salle Rolling Mills is located at 1375 Ninth Street and is a zinc rolling mill that currently has approximately 100 employees. The company receives its zinc supplies in ingot form and does not do any smeltering. Carus Chemical Company is a manufacturer of potassium permangate and other specialty Chemicals. It is located directly south of La Salle Rolling Mills at 1500 Eighth Street and employs approximately 105 people.

Interviews with representatives of La Salle Rolling Mills and Carus Chemical Company indicate that the old Mattheissen and Hegeler Zinc Company property currently has multiple owners. Carus Chemical Company owns a parcel of land of approximately 13 acres at the north end of the property of

which approximately 5 acres was part of the Matthiessen and Hegeler Zinc Company property and 15 acres in the south part of the site as well as approximately 10 acres purchased from the Illinois Central Railroad after they abandoned the line. The Illinois Central Railroad Right of Way crosses the property in a north-south direction which roughly parallels the Little Vermilion River. Illinois Power Company owns a 150 foot by 150 foot section west of La Salle Rolling Mills and has an electrical substation on the property. Mr. Fred Carus owns 17 acres on the west side of the site and is a principle of Citizens Trust, which owns 112 acres of the site. La Salle Rolling Mills is located in the southwest portion of the property owned by Mr. Carus.

The property has multiple legal descriptions since it has several owners and is located in four adjacent sections. The site is legally described as being a part of the Southeast Quarter of Section Ten; the Southwest Quarter of Section Eleven; the Northwest Quarter of Section Fourteen and the Northeast Quarter of Section Fifteen, all in Township Thirty-three North, Range one East, of the Third Principal Meridian in La Salle County, Illinois. The property presently has two active businesses on the premises: La Salle Rolling Mills on the west central side and Carus Chemical Company on the south side. The site is surrounded by the Little Vermilion River on the north and east sides and by private residences located within the city limits of La Salle on the south and west sides. North and east of the site across the

Little Vermillion River lies farmland, a limestone quarry owned by Illinois Cement Company and a cemetery. A four mile radius map of the area surrounding the Matthiessen and Hegeler Zinc Company site and a fifteen mile surface water map is provided in Appendix A and B of this report.

2.3 SITE HISTORY

According to information obtained from a search of historical plat and Sanborn maps as well as interviews with personnel at La Salle Rolling Mills and Carus Chemical Company the Matthiessen and Hegeler zinc facility began operations at the La Salle location in 1858 and ceased operations in 1978 after declaring bankruptcy. Prior to 1858 the land was owned by the Illinois Central Railroad. Several important factors were instrumental in the decision to choose La Salle for the site of the zinc smelter. The La Salle location had a central location between the zinc ore producing regions in Wisconsin and Missouri and good coal supplies along the Illinois Central Railroad. This made it relatively easy to transport raw materials in and finished materials out via rail, the Illinois and Michigan Canal and the Illinois River.

The facility constructed a zinc rolling mill in 1866 and incorporated the business in 1871. Edward Hegeler invented a hybrid furnace in 1881 that increased the efficiency of the roasting and smelting operation. The Hegeler furnace used producer gas as fuel and the sulfur dioxide generated during

roasting the ore was recovered and converted into sulfuric acid, which was stored in large tanks and sold as a by-product. The site also had an ammonium sulfate fertilizer plant which utilized some of the sulfuric acid generated and operated for only several years in the early 1950's.

Mattheissen and Hegeler quit mining coal onsite in 1937 and in 1961 stopped smelting zinc. The manufacture of sulfuric acid was discontinued in 1968 and from 1968 until closing in 1978 the facility only did rolling operations. The land where the rolling operations were conducted was purchased by Fred and Cynthia Carus at an auction in 1979 and they took ownership in 1980. The site currently has La Salle Rolling Mills and Carus Chemical Company on the property and the remnants of the following demolished (unless noted otherwise) structures that were used by the Matthiessen and Hegeler Zinc Company:

1) Office (active and presently used by La Salle Rolling Mills).
2) Rolling mill (active and presently used by La Salle Rolling Mills).
3) Pottery works
4) Smelting furnaces
5) Old pottery works
6) Ore storage
6) Roasters
7 Sulfuric acid works
8) Sulfuric acid pit storage
9) Rotary kiln
10) Engine house
11) Shops (presently on Carus Chemical Company property and were not demolished).
12) Coal mine
13) Boiler
14) Ammonium sulfate fertilizer plant
15) Sulfuric acid storage tanks
16) Gas plant

2.4 APPLICABILITY OF OTHER STATUTES

The Matthiessen and Hegeler Zinc Company began operations in 1858 and has been out of business since 1978 and the Illinois Environmental Protection Agency has no permits issued under their name. Given the years of existence, and the fact that many of the existing state and federal environmental regulations did not come into effect until the late 1970's and early 1980's, it is most likely that the facility was not subject to the Resource Conservation and Recovery Act (RCRA), Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Atomic Energy Act (AEA), or Uranium Mill Tailings Radiation Control Act (UMTRCA).

The property currently has two active facilities operating on the property that are not presently regulated under RCRA (Resource Conservation and Recovery Act) since the materials used and generated are not classified as hazardous. Carus Chemical Company has permits issued by the Illinois Environmental Protection Agency for the operation of a treatment pond, sewer connections to the city of La Salle and NPDES water permit for the discharge of treated water into the Little Vermillion River. IEPA files list La Salle Rolling Mills as having been issued permits as a special waste generator for the disposal of non-hazardous wastes at Peoria City/County Landfill.

FIGURE 2-1

STATE OF ILLINOIS LOCATION MAP

SDMS US EPA REGION V

COLOR-RESOLUTION - 2

IMAGERY INSERT FORM

The following page(s) of this document include color or resolution variations. Unless otherwise noted, these pages are available in monochrome. The original document is available for viewing at the Superfund Records Center.

SITE NAME	MATTHIESEN & HEGELER ZINC
DOC ID #	146316
DESCRIPTION OF ITEM(S)	MAPS
PRP	RMD - MATTHIESEN & HEGELER ZINC
DOCUMENT VARIATION	_X_ COLOR **OR** ___ RESOLUTION
DATE OF ITEM(S)	04-16-1988
NO. OF ITEMS	3
PHASE	SAS
OPERABLE UNITS	
LOCATION	Box #__ Folder #___ Subsection _C3___
PHASE (AR DOCUMENTS ONLY)	___ Remedial ___ Removal ___ Deletion Docket ___Original ___ Update # ___ Volume ___ of ___
COMMENT(S)	SITE LOCATION MAPS - FIGURE 2-2 - 2-3

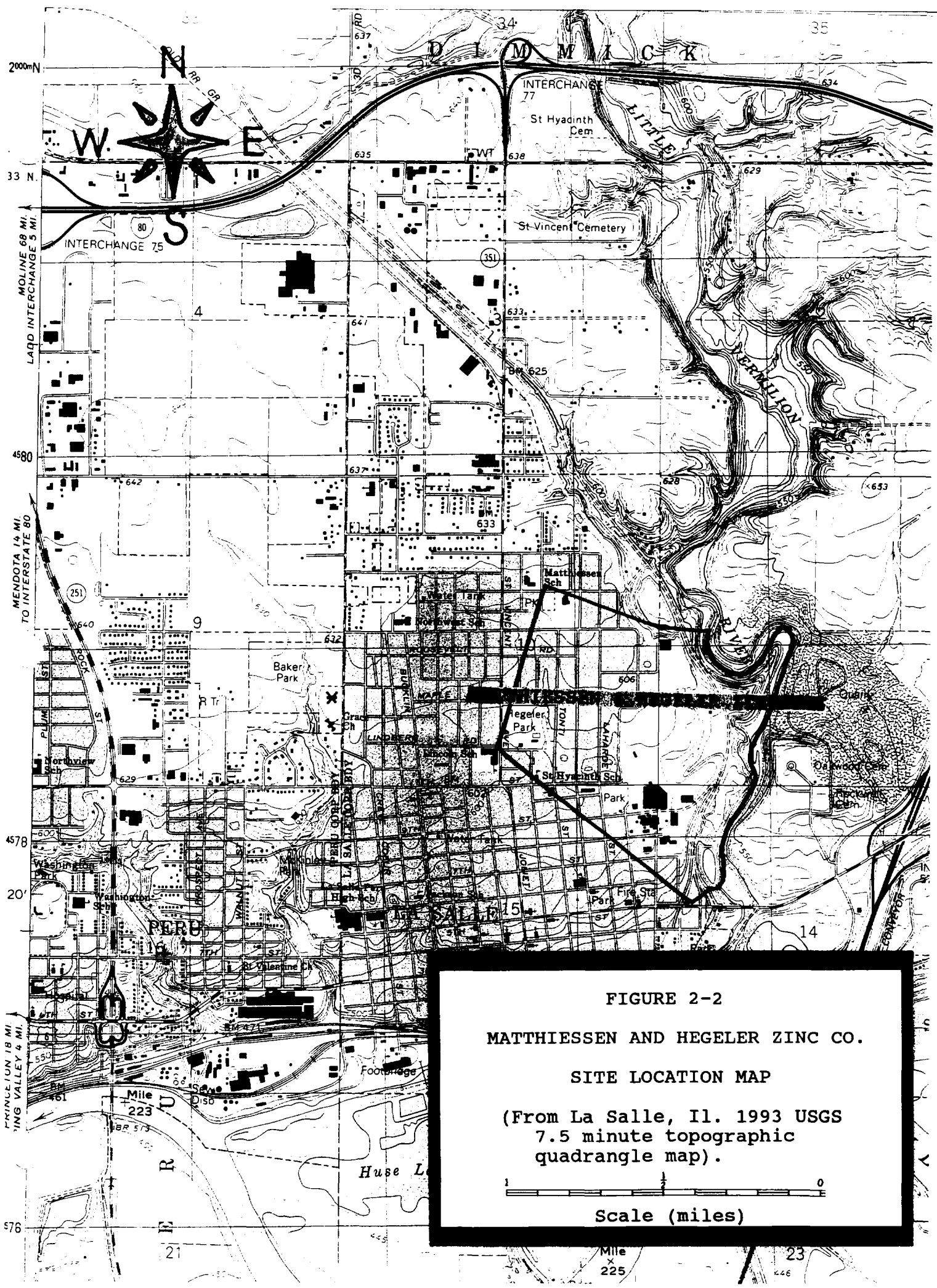


FIGURE 2-2

MATTHIESSEN AND HEGELER ZINC CO.

SITE LOCATION MAP

(From La Salle, Il. 1993 USGS 7.5 minute topographic quadrangle map).

1 0

Scale (miles)

FIGURE 2-3

AERIAL PHOTOGRAPH
(Of Matthiessen & Hegeler property)

Scale: 1 inch equals 200 feet

From: Illinois Department of Transportation
aerial photo taken April 16, 1988

FIGURE 2-3

AERIAL PHOTOGRAPH
(Of Matthiessen & Hegeler property)

Scale: 1 inch equals 200 feet

From: Illinois Department of Transportation
aerial photo taken April 16, 1988

3.0 SITE INSPECTION ACTIVITIES AND ANALYTICAL RESULTS

3.1 INTRODUCTION

This section outlines procedures utilized and observations made during the CERCLA Integrated Site Assessment inspection conducted at the Matthiessen and Hegeler Zinc Company site. Specific portions of this section contain information pertaining to the reconnaissance inspection, city of La Salle briefing and residential sampling access, site representative interview, and field sampling procedures. Also included in this section is information about the soil and sediment samples that were collected during the site inspection, a description of the analytical results and a table indicating the Key Samples and their contaminants. The Integrated Site Assessment inspection for the Matthiessen and Hegeler Zinc Company site was conducted in accordance with the site inspection work plan that was developed and submitted to the U.S. EPA Region V offices prior to the initiation of field activities. The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for Matthiessen and Hegeler Zinc Company is located in Appendix C of this report.

3.2 RECONNAISSANCE INSPECTION

On November 12, 1993 Mr. Robert Casper and Mr. Peter Sorensen of the Illinois Environmental Protection Agency conducted a Site Reconnaissance Inspection of the Matthiessen and Hegeler Zinc Company site in La Salle Illinois. The

reconnaissance included a visual inspection of the facility to delineate the extent of their present and past activities, identify potential sampling locations and identify appropriate health and safety concerns. During the reconnaissance visit it was determined that Level D inspection attire could be worn during the sampling activities unless air monitoring equipment detected any concentrations over background levels. After the site reconnaissance visit the route to the nearest hospital was driven as required by IEPA Site Safety Plan standard operating procedures.

On the day of the reconnaissance visit the portion of the Matthiessen and Hegeler Zinc Company property owned by Mr. Fred and Cynthia Carus was toured and potential sampling locations were noted. During this part of the reconnaissance Cynthia Carus accompanied the IEPA personnel. Carus Chemical Company was not toured at this time because the facility was sampled in November, 1991 and during the forthcoming inspection IEPA planned to focus attention on the large waste pile located at the northeast corner of the Carus Chemical Company manufacturing facility and other potential contaminated locations north of Carus Chemical Company as well as off property residences.

The site has two active businesses on property that was part of the Matthiessen and Hegeler Zinc Company site. Carus Chemical Company and La Salle Rolling Mills lie in the southwestern portion of the property. These two businesses

have 100 and 105 employees respectively and are not patrolled by guards to prevent site access during times when workers are not present. The Matthiessen and Hegeler property is a facility consisting of approximately 160 acres and is bordered on the east side by the Little Vermilion River. During the reconnaissance visit trespassers were noticed on the property even though the site has fencing around the west and south sides. The fence does have areas where access to the property could be gained through holes and it appeared that some illegal dumping has taken place in some areas. In the center of the property are the remains of a number of buildings that have been demolished and a large hole that is part of an old abandoned and collapsed city of La Salle sewer. The hole had pools of water in it that fed a small stream with a slight flow of water. The water had a blue-green color and disappeared into the ground, presumably back into the sewer somewhere between the hole and river. The water from the sewer eventually flows from an outfall into an approximately 200 foot long brook that leads into the Little Vermilion River. The brook had a flow of water on the day of the reconnaissance visit. The abandoned right-of-way of the Illinois Central Railroad crosses the entire north-south length of the property and roughly parallels the Little Vermilion River. During a subsequent offsite survey of the area it was noted that the Matthiessen and Hegeler Zinc Company facility is surrounded by private residences adjacent to the property on the west and south sides. At the northwest

corner of the property is the offsite vacant building that was previously occupied by the Apollo Metal Works. North across the river is vacant land and east across the Little Vermilion River lies the quarry of Illinois Cement Company, Oakwood Cemetery and vacant land.

3.3 CITY OF LA SALLE BRIEFING, RESIDENTIAL SOIL SAMPLING ACCESS AND SPRINGFIELD MEETING

On November 19, 1993 the author and Illinois Environmental Protection Agency Community Relations Coordinators Virginia Wood and Donald Harrison met with city of La Salle officials and local environmental representatives to brief them of the upcoming inspection and to begin the process of obtaining access for residential soil sampling.

A morning meeting was held with La Salle Mayor Paul Murphy, Superintendent of Public Works Pam Broviak and Sewage Disposal Plant Superintendent Sam McNeeley. During the meeting the objectives of the inspection were discused and questions regarding the inspection were answered. During the meeting city officials stated that they do not believe that slag from the Matthiessen and Hegeler Zinc Company was used on sidewalks or streets in town. Later in the day another meeting was held with County Board Member Ken Krogulski, La Salle County Health Department Public Health Administrator Margo Schmitz, Dr. Franklin Jasiek and Dr. John Lavieri. Drs. Jasiek and Lavieri belong to a local environmental group known as SOLVE (Save Our Little Vermilion Environment).

During the meeting it was brought out that the site is used by local children as a bike path.

After the meeting permission was obtained from Mr. George Affelt, Principal of Lincoln Junior High School, to sample the school grounds. Mr. Affelt stated that the school has 196 students and 34 full time staff members. A visit was also made to St. Hyacinth Church to meet with Parish Priest Father Anderson. Father Anderson recommended contacting the Rev. Msgr. James F. Campbell of the Catholic Diocese of Peoria for permission, who gave approval on November 30, 1993. A later phone conversation with Sister Kathleen Stafford indicated that the school has an enrollment of approximately 54 students and a staff of five fulltime and two part time personnel. A visit was lastly made to the Kids' Place Day Care Center and a meeting with John Nelson of the La Salle County Housing Authority. Mr. Nelson took a copy of the consent form which later was signed and returned to IEPA by Mr. Stanley Twait, Executive Director of the Housing Authority for La Salle County. The Kids' Place Day Care Center serves 71 children with a full time staff of ten and a partime staff of nine.

The author and Virginia Wood again travelled to La Salle on November 29, 1993 to obtain access for the offsite soil residential sampling. Each person contacted was given a fact sheet explaining the purpose of the inspection and given a written consent form to sign. All residences sampled during the inspection gave written consent either on November 29,

1993 or via mail prior to the inspection. Before the date of the inspection permission was also obtained via telephone from all residents to allow Cynthia Carus from La Salle Rolling Mills to obtain a split soil sample.

A meeting was held in Springfield on December 8, 1993 with the Illinois Environmental Protection Agency being represented by the author, Robert O'Hara, Terry Ayers, Virginia Wood, Thomas Crause and Ron Turpin with the Bureau of Labs. La Salle Rolling Mills was represented by owners Fred and Cynthia Carus and their consultant Fredrick J. Kessler of Blackman Kallick Bartelstein, Chicago, IL., Certified Public Accountants/ Consultants to Business. Carus Chemical Company was represented by Roger Threde, Vice President of Manufacturing; Mark Sargis, Attorney with Winston and Strawn, Chicago, IL, and Neil D. Williams, President and Chief Executive Officer of GeoSyntec Consultants of Boca Raton, Florida. Carus Chemical Company was doing Voluntary Cleanup Work on a portion of their property and Robert O'Hara was on hand to answer questions that Carus Chemical Company or Fred and Cynthia Carus had regarding the Voluntary Cleanup Program. During the meeting the number, types and locations of samples were discused and Cynthia Carus said that she would like to split samples off as well as on her property. She requested a Statement of Work which was sent to her two days later via mail. Carus Chemical Company representatives said they would only need to split samples collected on their property.

3.4 SITE REPRESENTATIVE INTERVIEW

On December 14, 1994 a Site Representative Interview was conducted between the author and Cynthia Carus of La Salle Rolling Mills. Carus Chemical Company representatives were contacted prior to sampling so that their consultant could be on hand to split the relevant samples. The Illinois Environmental Protection Agency sampling team of Robert Casper, Peter Sorensen, Scott Davis and Mark Wagner, with Cynthia Carus representing La Salle Rolling Mills began sampling activities on December 14, 1993.

3.5 SOIL/SEDIMENT SAMPLING

On December 14 and 15, 1993 Illinois Environmental Protection Agency Personnel collected 21 soil and 4 sediment samples to help characterize the nature of sources, and to determine if these sources had impacted nearby human populations or the environment (see figures 3-1 and 3-2 for sampling locations). The samples within the property boundaries were analyzed for organic and inorganic substances while the residential soil samples were only analyzed for inorganic substances. The shallow soil samples were collected with stainless steel spoons and trowels whereas the deeper soil samples were collected with stainless steel bucket augers. The soil was transferred directly into the sample jars from the sampling device. Before the spoons, trowels or bucket augers were used at the site, each had been

decontaminated at the Illinois Environmental Protection Agency's central offices' decontamination facility. HNU photoionization detector readings were taken during sample collection at the site of the coal gasification plant but not at other locations due to the weather being wet and concern of damaging the instrument. During the Integrated Assessment Inspection Level D personal protection was worn.

The soil and sediment sample jars were packaged and sealed in accordance with previously documented CERCLA Site Assessment Program procedures. Photographs for the Matthiessen and Hegeler Zinc Company Integrated Assessment site inspection are provided in Appendix E of this report. According to the Soil Survey of La Salle County, May, 1972 by the University of Illinois Agricultural Experiment Station, the land where Matthiessen and Hegeler Zinc Company is located is classified as "Industrial Land" in the area west of the Illinois Central Railroad, "Spoil" in the southeast area between the railroad and the Little Vermilion River, and as "Shale Rockland, 30-60% Slopes", in the northeast area between the railroad and river.

The following table lists the soil/sediment samples collected on December 14 and 15, 1993:

Table 3-1

Soil/Sediment Samples

Sample Time Date	Depth	Location	Appearance
X101 11:05am 12/15/93	2" to 4"	Collected 78 feet west of the Little Vermilion River and 86 feet north of 12/15/93 Edward Duffy Road, located approximately one and a half miles north of the site.	Black soil.
X102 9:35am 12/1493	12"to 18"	Collected in the area of the old coal gas plant, 15 feet south of the foundation of the old boiler and 38 feet east of telephone pole.	Coarse, dark soil.
X103 10:25am 12/14/93	18"to 24"	Collected 217 feet north of the pottery works.	Black, coal fines.
X104 4:30pm 12/14/93	2" to 8"	Collected 220 feet west of the east end and 67 feet south of the chain link fence on the slag pile owned by Carus Chemical Company.	Coarse, black, coal-4:30pm like.
X105 4:00pm 12/14/93	2" to 8"	Collected 156 feet north of the Carus Chemical Company chain link fence. Sample collected on the slag pile owned by Carus Chemical Company.	Grainy, dark brown.
X106 3:30pm 12/14/93	2" to 8"	Collected 175 feet south of the railroad tracks on the north side of the large slag pile along the Little Vermilion River. Slag pile is on property belonging to Carus Chemical Company.	Grainy texture, dark brown color.
X107 X108 9:00am 12/15/93	10" to 24"	Collected 7 1/2 feet west of the south acid tank foundation.	Black clayey soil. Note: Area had a sulfur dioxide odor.
X109 9:15am 12/15/93	2" to 5"	Collected in the rusted drum area.	Black cinders and clay.

Sample Time Date	Depth	Location	Appearance
X201 10:50am 12/15/93	0" to 3"	Collected on the east bank of the Little Vermilion River 72 feet north of the bridge on Edward Duffy Road, approximately one and a half miles north of the Matthiessen and Hegeler property. Background sample.	Brown silty sand.
X202 X203 11:30am 12/14/93	0" to 3"	Sample and duplicate sample collected 3 feet south of the old sewer entrance into the Little Vermilion River.	Fine brown clay.
X204 11:45am 12/14/93	0" to 6"	Collected on the west bank of the Little Vermilion River approximately 175 feet north of the point where drainage from Illinois Cement Company on the east side enters the river.	Fine brown clay.
X205 12:00pm 12/14/93	0" to 3"	Collected on the west bank of the Little Vermilion River south of a sandbar located at the bend in the river located at the northeast corner of the site.	Brown clay with some sand.

Sample Time Date	Depth	Location	Appearance
X111 1:30pm 12/15/93	0" to 1"	Collected at the Kids Place Day Care Center, located at 901 Grant Street. Collected 17 1/2 feet south and 8 feet east of the corner of the building.	Black soil.
X112 3:50pm 12/15/93	0" to 1"	Collected at Lincoln School, 22 feet east and 26 feet north of the northeast corner of the school.	Black soil.
X113 1:10pm 12/15/93	0" to 1"	Collected at St Hyacinth School, 48 feet north and 9 1/2 feet east of the northwest corner of the old convent, located east of the school. Sample was obtained 15 feet east of the playground.	Black soil.
X114 8:10am 12/15/93	0" to 1"	Collected at a Zinc Street residence, 28 feet northwest of telephone pole and 21 feet east of the southeast corner of the house.	Fine black soil.
X115 2:40pm 12/15/93	0" to 1"	Collected at a Zinc Street residence, 79 1/2 feet due east of the southeast corner of the house.	Black soil.
X116 8:30am 12/15/93	0" to 1"	Collected at a Zinc Street residence, 42 feet west and 23 feet north of the southwest corner of the house.	Fine black soil.
X117 12:15pm 12/15/93	0" to 1"	Collected at a Sterling Street residence, 18 1/2 feet east and 1 foot north of the southeast corner of the house.	Black soil.

Sample Time Date	Depth	Location	Appearance
X119 11:40am 12/15/93	0" to 1"	Collected at a La Harpe Street residence, 15 feet east and 7 1/2 feet north of the northeast corner of the house.	Black soil.
X120 12:05pm 12/15/93	0" to 1"	Collected at a Sterling Street residence, 3 1/2 feet east and 22 feet north of the northeast corner of the front porch.	Black soil.
X121 12:50pm 12/15/93	0" to 1"	Collected at a Union Street residence, 13 feet west and 12 feet south of the southeast corner of the porch.	Black soil.
X122 1:55pm 12/15/93	0" to 1"	Collected at a Todd Street residence, 34 1/2 feet east and 3 feet north of the southeast corner of the house.	Black soil.
X123 2:15pm 12/15/93	0" to 1"	Collected at a 5th Street residence, 46 feet north and 13 feet east of the northeast corner of the house.	Black soil
X124 3:15pm 12/15/93	0" to 1"	Collected at a 5th Street residence, 45 feet north of the north-east corner of the house and 11 feet east of the north-east corner of the garage.	Black soil.

Standard Illinois Environmental Protection Agency decontamination procedures occurred at the central offices' main decontamination facility prior to the collection of all samples. The procedures included the scrubbing of all equipment (bailers, spoons, pans, etc.) with a non-foaming Trisodium Phosphate solution, rinsing with acetone, rinsing with hot tap water again and final rinsed with distilled water. All equipment is air dried, then wrapped and stored in heavy duty aluminum foil for transport to the field. Field decontamination procedures were not performed during the inspection.

3.6 GROUNDWATER SAMPLING

Matthiessen and Hegeler Zinc Company has no known monitoring wells. Monitoring wells on Carus Chemical Company property were sampled by the Illinois Environmental Protection Agency in November, 1991 but were not re-sampled during the current inspection. The nearest drinking water wells consist of the city of La Salle well field located approximately 2,700 feet south of the site. The city of La Salle obtains all of their drinking water from a group of six wells which range in depth from 61 to 70 feet and utilize the sand and gravel aquifer. These wells produced a total of 1,012,810,000 gallons of water in 1993.

3.7 SURFACE WATER SAMPLING

No surface water samples were collected during the December 14 and 15, 1993 Integrated Site Assessment inspection of the Matthiessen and Hegeler Zinc Company site. The property has a rugged terrain and during a storm event a substantial amount of the precipitation would flow into the Little Vermilion River via direct runoff or though drainage into the old collapsed city of La Salle sewer. According to the Flood Insurance Rate Map for La Salle a narrow band of the property along the Little Vermilion River lies within the 100 year floodplain and the rest of the site lies outside the 500 year floodplain.

3.8 ANALYTICAL RESULTS

This section includes a summary of the analytical results of samples collected during the Integrated Site Assessment inspection conducted at the Matthiessen and Hegeler Zinc Company site in La Salle, Illinois. The field activities portion of the CERCLA Integrated Site Assessment inspection included the collection 21 soil and 4 sediment samples by the Illinois Environmental Protection Agency inspection team. The twenty-five samples were collected to determine if any U.S. EPA Target Compound List compounds were present at the site or at potential receptors of concern. As previously mentioned the IEPA samples were analyzed for the Target Compound List with the organic compounds being

analyzed by the IEPA Springfield laboratory and the inorganic substances by the IEPA laboratory in Champaign, Illinois. A quality assurance review of the sample analysis was performed by the Illinois Environmental Protection Agency's Division of Laboratories Quality Assurance section in Springfield, Illinois. The Target Compound Listing is provided in Appendix D of this report. Specific compound detection limits can be found in Appendix F (the analytical section) of this report. See figures 3-1 and 3-2 for specific sampling locations. Fred and Cynthia Carus, owners and operators of La Salle Rolling Mills, own the majority of the Matthiessen and Hegeler Zinc Company property accompanied the site assessment team and received the requested split samples and acted as their own consultant during the inspection. Carus Chemical company hired GeoSyntec Consultants of Boca Raton, Florida to represent them during the collection of samples on their property and their representative Jack Ramer and Carus Chemical Company employee James Miller split the relevant samples with the IEPA. Analysis of the twenty-one soil samples collected during the inspection revealed elevated concentrations of volatiles, semivolatiles, pesticides, and inorganic substances. Analysis of the four sediment samples collected during the inspection revealed elevated concentrations of pesticides, a tentatively identified compound and inorganic substances. See Table F-1 for the summary of the sample results. Complete laboratory analytical data for the samples are provided in Appendix F of this

report.

3.9 KEY SAMPLES

Samples collected during the Integrated Site Assessment inspection of the Matthiessen and Hegeler Zinc company site indicate concentrations of contaminants at levels that are significantly above background at certain sampling points. The following tables (3-3 and 3-4) list the key samples obtained during the Matthiessen and Hegeler Zinc Company Integrated Assessment inspection. For a more detailed sample analysis, refer to Table F-1 Sample Summary, located at the front of Volume 2 of this report.

Samples found to exceed established CERCLA Removal Action Levels (RAL's) include:

Compound	RAL (ppm)	SAMPLE	DEPTH	CONCENTRATION
Pentachlorophenol	1-100	X102	12-18"	36,000 ppb
Arsenic	8-200	X102	12-18"	43.1 ppm
		X104	2-8"	21.5 ppm
		X105	2-8"	65.0 ppm
		X106	2-8"	110.0 ppm
		X107	10-24"	45.3 ppm
		X108	10-24"	63.5 ppm
		X109	2-5"	94.9 ppm
		X205	0-3"	15.9 ppm
		X115	0-1"	24.8 ppm
		X117	0-1"	24.1 ppm
		X119	0-1"	16.8 ppm
		X120	0-1"	26.1 ppm
		X121	0-1"	17.1 ppm
		X122	0-1"	21.5 ppm
		X123	0-1"	21.4 ppm
		X124	0-1"	17.7 ppm
Cadmium	25	X102	12-18"	67.7 ppm
		X104	2-8"	36.1 ppm
		X105	2-8"	59.9 ppm

		X106	2-8"	181.0 ppm
		X109	2-5"	1320.0 ppm
		X202	0-3"	28.4 ppm
		X203	0-3"	46.5 ppm
		X112	0-1"	74.8 ppm
		X113	0-1"	40.1 ppm
		X114	0-1"	39.2 ppm
		X115	0-1"	94.4 ppm
		X116	0-1"	32.7 ppm
		X117	0-1"	110.0 ppm
		X119	0-1"	92.5 ppm
		X120	0-1"	71.1 ppm
		X121	0-1"	60.6 ppm
Lead	500-1,000	X102	12-18"	1,310.0 ppm
		X104	2-3"	905.0 ppm
		X106	2-3"	1,370.0 ppm
		X107	10-12"	646.0 ppm
		X108	10-12"	4,310.0 ppm
		X109	0-1"	2,340.0 ppm
		X112	0-1"	748.0 ppm
		X115	0-1"	996.0 ppm
		X117	0-1"	1,030.0 ppm

SITE NAME: MATTHIESSEN & HEGELER ZINC CO
ILO NUMBER: 000084782

TABLE 3 - 2
KEY SAMPLES
M & H Property

SAMPLING POINT	X 101	X 102	X 103	X 107	X 108	X 109	X 201	X 202	X 203	X 204	X 205
PARAMETER	12-15-93 (Background)	12-14-93	12-14-93	12-15-93	12-15-93	12-15-93	12-15-93 (Background)	12-14-93	12-14-93	12-14-93	12-14-93
VOLATILES											
Methylene Chloride	13.00 U	130.00	--	--	--	--		--	--	--	--
Acetone	12.00 U	25.00	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	12.00 UJ	16.00	--	8.00 J	32.00	19.00	--	--	--	--	--
1,1,1-Trichloroethane	9.00 J	35.00 J	--	--	--	--	--	--	--	--	--
Toluene	12.00 UJ	9.00 J	--	--	--	--	--	--	--	--	--
Ethylbenzene	12.00 UJ	6.00 J	--	--	--	--	--	--	--	--	--
Xylene(total)	12.00 UJ	16.00	--	--	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
SEMIVOLATILES											
Naphthalene	380.00 U	1500.00 J	140.00 J	--	--	--	--	--	--	--	--
2-Methylnaphthalene	380.00 U	3400.00	120.00 J	--	--	--	--	--	--	--	--
Dibenzofuran	380.00 U	1500.00 J	97.00 J	--	--	--	--	--	--	--	--
Hexachlorobenzene	380.00 U	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	950.00 U	38000.00	--	--	--	--	--	--	--	--	--
Phenanthrene	380.00 U	3400.00	570.00	170.00 J	--	620.00 J	--	--	--	--	--
Fluoranthene	380.00 U	3800.00	1100.00	--	--	770.00 J	--	--	--	--	--
Pyrene	380.00 U	4000.00	710.00	--	--	800.00 J	--	--	--	--	--
Benzo(a)anthracene	380.00 U	2100.00 J	--	--	--	--	--	--	--	--	--
Chrysene	380.00 U	2400.00 J	540.00	--	--	340.00 J	--	--	--	--	--
Benzo(b)fluoranthene	380.00 U	2800.00 J	730.00	--	--	--	--	--	--	--	--
Benzo(a) pyrene	380.00 U	1200.00 J	--	--	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
PESTICIDES											
alpha-BHC	2.10 U	--	1.50 J	--	--	--	--	--	--	--	--
beta-BHC	2.10 U	--	--	8.90 P	1.80 JP	--	--	--	--	--	--
delta-BHC	2.10 U	--	--	--	--	--	2.60 U	1.20 JP	1.00 JP	1.00 JP	3.00
Aldrin	2.10 U	38.00	1.60 JP	0.42 JP	--	1.20 JP		--	--	--	--
Endosulfan I	2.10 U	12.00 P	--	--	--	--	--	--	--	--	--
Dieldrin	0.75 JP	--	2.30 JP	--	--	4.60 P	1.50 J	6.50 P	5.20 P	17.00 P	--
4,4'-DDE	0.87 J	--	--	--	--	--	--	--	--	--	1.40 JP
Endrin	1.00 J	76.00 P	13.00 P	--	--	8.70 P	5.00 U	7.80	6.80	67.00	2.80 J
Endosulfan II	4.40 U	--	--	--	--	--	--	--	--	--	--
4,4'-DDD	4.40 U	37.00	7.80	--	--	--	5.00 U	2.70 JP	1.80 JP	9.70 P	0.79 JP
4,4'-DDT	0.82 JP	--	29.00	--	--	--	5.00 U	1.80 JP	1.70 JP	8.20 P	1.30 JP
Methoxychlor (Marvate)	21.00 U	--	--	--	--	--	--	--	--	--	--
Endrin Ketone	1.40 J	50.00	--	--	--	--	5.00 U	--	1.40 J	--	--
Endrin Aldehyde	4.00 U	--	--	--	--	--	5.00 U	--	--	9.80	--
alpha-Chlordane	0.28 J	--	1.10 J	--	--	1.10 JP	0.62 J	3.50	2.80	17.00 P	--
gamma-Chlordane	2.10 U	19.00	3.00	1.10 JP	--	1.30 JP	2.60 U	1.40 JP	0.97 JP	9.10 P	0.56 JP
Toxaphene	210.00 U	--	--	--	--	810.00	--	--	--	--	--
Aroclor-1242	40.00 U	--	--	--	--	100.00 P	50.00 U	--	75.00 P	810.00	38.00 JP
Aroclor-1254	40.00 U	1900.00	55.00 P	--	--	80.80	50.00 U	66.00	62.00	630.00	32.80 J
Aroclor-1260	40.00 U	670.00	--	--	--	37.00 J	50.00 U	33.00 JP	23.00 JP	160.00 P	12.00 JP
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
TENTATIVELY IDENTIFIED COMPOUNDS											
Hexane, 2-Bromo-	--	--	--	--	--	--	--	--	780.00 JN	--	--
Ethane, 1,2-Diethoxy-	--	23.00 JN	--	--	--	--	--	--	--	--	--
2Pentanone, 4Hydroxy-4Methyl	--	60000.00 JNBA	--	--	--	--	64000.00 U	--	--	--	--
Naphthalene, Dimethyl	--	6000.00 JNBA	--	--	--	--	--	--	--	--	--
Naphthalene, Trimethyl	--	5800.0 JN	--	--	--	--	--	--	--	--	--
Azulene, 7Ethyl-1,4Dimethyl	--	6100.00 JN	--	--	--	--	--	--	--	--	--
Anthracene, Methyl	--	3900.00 JN	--	--	--	--	--	--	--	--	--
Benzene, Pentachloro-	--	--	--	--	--	--	--	--	--	--	--
Benzene, Pentachloro(Trichlo	--	--	--	--	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
INORGANICS											
Aluminum	4980.00	--	--	7740.00	13300.00	10800.00	4170.00	--	--	--	--
Arsenic	3.50	43.10	--	45.30	63.50	84.90	3.20	--	--	--	15.60
Barium	36.80 B	118.00	--	310.00	347.00	145.00	--	--	--	--	--
Beryllium	0.39 B	1.40	--	--	--	--	0.24 U	0.46 B	0.62 B	0.61 B	0.55 B
Cadmium	0.87 B	67.70	11.40	--	2.70	1330.00	0.72 U	28.40	46.50	2.70	2.60
Calcium	11800.00	--	--	--	--	--	--	--	--	--	--
Chromium	8.00	--	--	--	--	88.80	5.30	--	--	18.70	20.10
Cobalt	7.80 B	--	--	--	--	94.90	--	--	--	--	--
Copper	9.80	407.00	60.60	38.40	49.80	3650.00	5.50 B	108.00	259.00	--	--
Iron	14600.00	--	--	--	--	103000.00	--	--	--	--	--
Lead	13.30	1310.00	474.00	646.00	4310.00	2340.00	6.90	164.00	325.00	28.80	--
Manganese	376.00	--	--	--	--	1880.00	--	--	--	--	--
Mercury	0.08 U	0.68	0.92	8.20	86.00	9.50	0.07 U	0.40	0.51	0.06 B	--
Nickel	14.10	--	--	--	--	2470.00	5.80 B	--	22.00	17.70	25.30
Potassium	630.00 B	--	--	--	--	--	409.00 B	--	1650.00	1480.00	--
Selenium	0.41 B	1.60	11.00	19.30	43.80	5.80	0.54 U	--	0.41 B	0.88 B	--
Silver	1.20 U	4.60	--	--	--	28.40	--	--	--	--	--
Sodium	82.60 U	--	--	422.00 B	463.00 B	728.00 B	--	--	--	--	--
Thallium	0.84 U	0.81 B	0.41 B	0.82 B	0.40 B	--	0.32 U	--	0.29 B	0.38 B	--
Vanadium	13.00	--	--	--	48.10	--	10.60 B	--	--	--	66.00
Zinc	65.30	16600.00	1650.00	445.00	826.00	71200.00	48.20	4670.00	12100.00	282.00	150.00
Cyanide	1.00 U	--	--	--	--	4.40	--	--	--	--	--
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

SITE NAME: MATTHIESSEN & HEGELER ZINC CO.
ILO NUMBER: 000064782

TABLE 3-3
KEY SAMPLES
(Residential)

SAMPLING POINT	X 101 12-14-93 (Background)	X 111 12-15-93	X 112 12-15-93	X 113 12-15-93	X 114 12-15-93	X 115 12-15-93	X 116 12-15-93	X 117 12-15-93	X 119 12-15-93	X 120 12-15-93	X 121 12-15-93	X 122 12-15-93	X 123 12-15-93	X 124 12-15-93
PARAMETER														
INORGANICS										--	--	--	--	--
												--	--	--
Aluminum	4990.00	16500.00	--	--	--	--	15800.00	15800.00	16300.00	19900.00	16300.00	17500.00	16500.00	17400.00
Arsenic	5.50	--	--	--	--	24.80	--	24.10	16.80	26.10	17.10	21.50	21.40	17.70
Barium	96.80 B	283.00	196.00	188.00	204.00	283.00	251.00	195.00	190.00	226.00	297.00	159.00	215.00	179.00
Beryllium	0.89 B	--	--	--	1.20 B	--	--	1.80	1.40	1.30 B	1.20	--	1.70	1.50
Cadmium	0.87 B	7.80	74.60	40.10	39.20	94.40	32.70	110.00	92.50	71.10	60.60	12.40	16.90	23.50
Calcium	11800.00	--	--	36300.00	--	--	--	--	--	--	--	--	--	--
Chromium	9.00	27.00	--	--	--	26.50	--	24.70	32.90	33.00	25.10	25.80	25.90	25.00
Copper	9.90	--	113.00	75.50	64.80	149.00	62.90	153.00	85.80	111.00	81.70	40.20	54.40	60.10
Lead	18.30	100.00	748.00	456.00	815.00	996.00	346.00	1030.00	416.00	428.00	316.00	212.00	229.00	240.00
Manganese	976.00	--	--	--	--	--	--	--	1170.00	3470.00	4340.00	1730.00	1180.00	1370.00
Mercury	0.06 U	0.09 B	0.09 B	0.20	0.22	0.54	0.17	0.45	0.38	0.34	0.29	0.29	1.00	0.24
Potassium	850.00 B	2270.00	1770.00	3270.00	2250.00	2170.00	2290.00	2520.00	2600.00	3210.00	3230.00	2560.00	2900.00	2500.00
Selenium	0.41 B	--	--	--	--	1.90	--	2.20	2.00	2.20	--	--	--	2.20
Silver	1.20 U	--	2.50	1.40	1.40	3.00	1.70	3.40	1.60 B	2.40 B	1.60 B	--	--	--
Thallium	0.24 U	0.31 B	--	0.99 B	0.84 B	--	0.31 B	0.58 B	--	--	0.28 B	--	--	--
Vanadium	15.00	--	--	--	--	--	--	--	--	45.80	--	--	--	--
Zinc	85.30	1030.00	10700.00	4940.00	4900.00	15700.00	4050.00	13600.00	7970.00	7770.00	6010.00	1760.00	2330.00	3220.00
Cyanide	1.00 U	1.30	--	2.50	1.30	1.40	--	1.40	--	--	--	--	--	--
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

SDMS US EPA REGION V

COLOR-RESOLUTION - 2

IMAGERY INSERT FORM

The following page(s) of this document include color or resolution variations. Unless otherwise noted, these pages are available in monochrome. The original document is available for viewing at the Superfund Records Center.

SITE NAME	MATTHIESEN & HEGELER ZINC
DOC ID #	146316
DESCRIPTION OF ITEM(S)	SAMPLE LOCATION MAPS
PRP	RMD - MATTHIESEN & HEGELER ZINC
DOCUMENT VARIATION	_X_ COLOR **OR** ___ RESOLUTION
DATE OF ITEM(S)	04-16-1988
NO. OF ITEMS	3
PHASE	SAS
OPERABLE UNITS	
LOCATION	Box #__ Folder #___ Subsection _C3___
PHASE (AR DOCUMENTS ONLY)	___ Remedial ___ Removal ___ Deletion Docket ___Original ___ Update # ___ Volume ___ of ___

COMMENT(S)

SAMPLE LOCATION MAPS - FIGURE 3-1 - 3-2

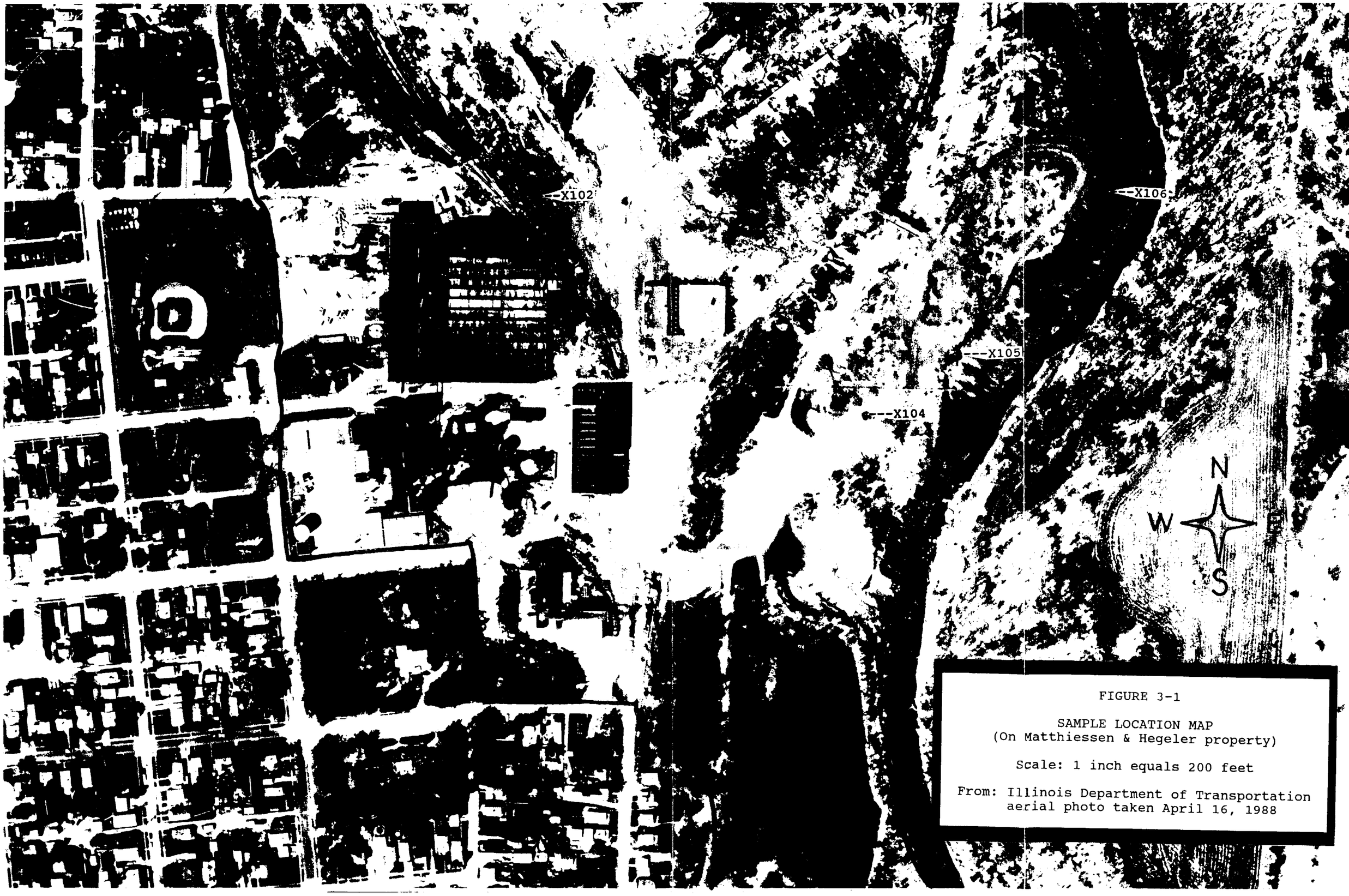


FIGURE 3-1

SAMPLE LOCATION MAP
(On Matthiessen & Hegeler property)

Scale: 1 inch equals 200 feet

From: Illinois Department of Transportation
aerial photo taken April 16, 1988

FIGURE 3-1

SAMPLE LOCATION MAP
(On Matthiessen & Hegeler property)

Scale: 1 inch equals 200 feet

From: Illinois Department of Transportation
aerial photo taken April 16, 1988

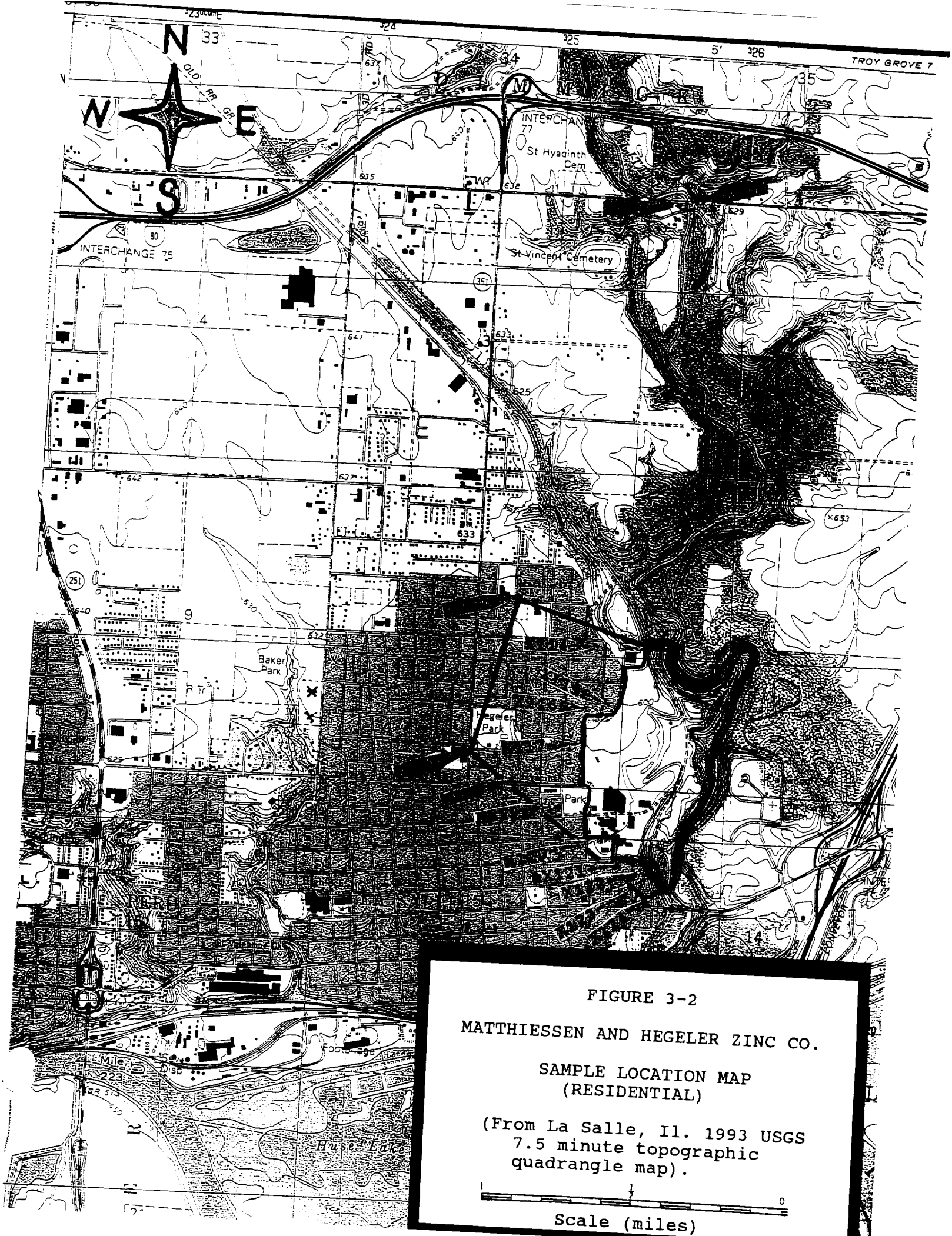


FIGURE 3-2

MATTHIESSEN AND HEGELER ZINC CO.

SAMPLE LOCATION MAP
(RESIDENTIAL)

(From La Salle, Il. 1993 USGS 7.5 minute topographic quadrangle map).

Scale (miles)

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chlorde	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroehtene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl) Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether
Hexachlorobutadiene	Anthracene

2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Ideno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

Inorganic Target Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobolt	Vanadium
Copper	Zinc
Iron	Cyanide
Lead	Sulfide
Magnesium	

DATA QUALIFIERS

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
U	Compound was tested for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by two, to account for the fact that only half of the extract is recovered.	Analyte was analyzed for but not detected.
J	Estimated value. Used when estimating a concentration for tentatively identified compounds (TICS) where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria and the result is less than the sample quantitation limit but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
C	This flag applies to pesticide results where the identification is confirmed by GC/MS.	Method qualifier indicates analysis by the Manual Spectrophotometric method.
B	Analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	The reported value is less than the CRDL but greater than the instrument detection limit (IDL).
D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor as in the "E" flag, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values are flagged with the "D" flag.	Not used.
E	Identifies compounds whose concentrations exceed the calibration range for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses must be reported on separate Forms I. The Form I for the diluted sample must have the "DL" suffix appended to the sample number.	The reported value is estimated because of the presence of interference.
A	This flag indicates that a TIC is a suspected aldol concentration product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA).
M	Not used.	Duplicate injection (a QC parameter not met).

N	Not used	Spiked sample (a QC parameter not met).
S	Not used.	The reported value was determined by the Method of Standard Additions (MSA).
W	Not used.	Post digestion spike for Furnace AA analysis (a QC parameter) is out of control limits of 85% to 115% recovery, while sample absorbance is less than 50% of spike absorbance.
*	Not used.	Duplicate analysis (a QC parameter not within control limits).
+	Not used.	Correlation coefficient for MSA (a QC parameter) is less than 0.995.
P	Not used.	Method qualifier indicates analysis by ICP (Inductively Coupled Plasma) Spectroscopy.
CV	Not used.	Method qualifier indicates analysis by Cold Vapor AA.
AV	Not used.	Method qualifier indicates analysis by Automated Cold Vapor AA.
AS	Not used.	Method qualifier indicates analysis by Semi-Automated Cold Spectrophotometry.
T	Not used.	Method qualifier indicates Titrimetric analysis.
NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.
R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.

4.0 IDENTIFICATION OF SOURCES

4.1 INTRODUCTION

In this section the author will briefly discuss the various hazardous waste sources which have been identified in the initial stages of the CERCLA Integrated Site Assessment Investigation.

Information concerning the size, volume and waste composition of each source has been derived throughout the initial site assessment, reconnaissance visits, and the Integrated Site Assessment sampling action. It should be pointed out, however, that the total number and nature of each of the sources identified below may be subject to change. The site may be redefined as it progresses through the CERCLA site investigation program and receives further investigation.

4.2 CONTAMINATED SOIL ON MATTHIESSEN AND HEGELER PROPERTY

Soil samples collected during the Integrated Site Assessment inspection indicate that there are areas of contaminated soil on the Matthiessen and Hegeler Zinc Company property. The samples were collected at depths ranging from two to 24 inches but the depth to which the contamination reaches is unknown. The area within the contaminated sampling points was measured with a planimeter from an aerial photograph taken on April 16, 1988 by the Illinois Department of Transportation and estimated to be approximately 6.3

million square feet. The origin of the source is from the dumping of wastes around the property and from deposition from smokestack emissions. The wastes are scattered about the property and have no containment features to prevent their migration to groundwater or surface water. Substances found in significant concentrations included volatiles, semivolatiles, pesticides, tentatively Identified compounds and metals.

4.3 CONTAMINATED SOIL IN ADJACENT RESIDENTIAL AREA

Thirteen samples were collected off of the Matthiessen and Hegeler Zinc Company property in the adjacent residential area. These samples were collected at depths ranging from 0 to one inch and were analyzed for inorganic substances only. The area of contamination was measured with a planimeter from an April 16, 1988 aerial photo obtained from the Illinois Department of Transportation and is estimated to be approximately 6.4 million square feet. The origin of the source is from air deposition of smokestack emissions and windblown dust particles. Metals detected include Arsenic (26.1 ppm), Barium (297.0 ppm), Berylium (1.8 ppm), Cadmium (110.0 ppm), Chromium (33.8 ppm), Copper (153.0 ppm), Lead (1,030 ppm), Manganese (4,340.0 ppm), Mercury (1.0 ppm), Selenium (2.2 ppm), Thalium (0.58 B ppm), Vanadium (45.8 ppm), Zinc (13,700 ppm) and Cyanide (2.5 ppm).

4.4 SLAG PILE

The Matthiessen and Hegeler Zinc Company property has a large slag pile located on the east side of the property adjacent to the Little Vermilion River. The size of the pile was estimated with a planimeter from an April 16, 1988 aerial photo obtained from the Illinois Department of Transportation and is approximately 363,820 square feet with an estimated height of 35 feet. The slag pile resulted from the dumping of waste materials from the smelting operation and has no containment features to prevent migration of contamination to groundwater or surface water. Three samples were collected in this area at depths of two to eight inches. Contaminants detected included volatiles, semivolatiles, pesticides, tentatively identified compounds and metals.

4.5 CONTAMINATED SEDIMENT

Three sediment samples were collected during the CERCLA Integrated Assessment inspection along the bank of the Little Vermilion River which forms the site's eastern boundary. The samples were collected along a segment of river approximately 1,600 feet in length which is classified as a Palustrine Broad-Leaved Forested Temporarily Flooded Wetland. The source resulted from substances being carried into the river by dumping or runoff from higher ground and has no containment features to prevent the hazardous substances from entering the surface water pathway. Contaminants found

include pesticides, tentatively identified compounds and metals.

4.6 POTENTIAL UNDETECTED SOURCES

Illinois Environmental Protection Agency files do not document the illegal dumping or burying of hazardous materials at the Matthiessen and Hegeler Zinc Company site. However the potential exists that burying of hazardous materials or unreported dumping or spills may have occurred during the 120 years the facility was in operation. During the CERCLA investigation of the site there were several areas where illegal dumping of residential wastes and white goods had occurred and it is not known if any hazardous wastes were illegally dumped in remote areas of the site. Further investigation of the site may discover other sources that were not found during the initial investigation.

5.0 MIGRATION PATHWAYS

5.1 INTRODUCTION

The CERCLA Site Assessment Program identifies three migration pathways and one exposure pathway by which hazardous substances may pose a threat to human health and/or the environment. Consequently, sites are evaluated on their known or potential impact to these four pathways. The pathways evaluated are groundwater migration, surface water migration, soil exposure, and air migration.

This section presents and discusses information collected during the CERCLA Integrated Site Assessment inspection of Matthiessen and Hegeler Zinc Company. This information, together with information documented in other sources, will be utilized in analyzing the site's impact on the four pathways and the various human and environmental targets within the established target distance limits.

Discussions of the pathways will include pathway descriptions, contaminant sources, and targets, such as human populations, fisheries, endangered species, wetlands and other sensitive environments.

5.2 GROUNDWATER

No Groundwater samples were collected during the December 14 and 15, 1993 Integrated Site Assessment inspection of the Matthiessen and Hegeler Zinc Company site. The only known monitoring wells onsite are located in the

southern portion of the property and belong to Carus Chemical Company. Three of these monitoring wells were sampled during the November, 1991 Screening Site Inspection of Carus Chemical Company and were found to contain concentrations of metals that were significantly over background concentrations.

Well logs obtained from Illinois State Water Survey and the Illinois Geological Survey and from water operators in Peru and La Salle indicate that Drinking water in the area is obtained from groundwater. The geology of the Matthiessen and Hegeler Zinc Company area consists of Wisconsin glacial till overlying the bedrock. The bedrock consists of fractured Silurian and Ordovician-aged dolomites and the St. Peter sandstone. The Illinois River lies approximately three-quarter of a mile south of the site and glacial deposits in this area are overlain by alluvial deposits. The direction of groundwater flow is believed to be towards the east since the Little Vermilion River lies adjacent to the site on the east and the site is at a much higher elevation than the river.

Wells are used exclusively for drinking in the La Salle-Peru area. The nearest municipal well is La Salle Well 4 (IEPA No. 11465) located approximately 2,700 feet south of the site. This well is a 63 feet deep well that draws water from the sand and gravel aquifer. La Salle (population 9,717) obtains all their drinking water from a cluster of six active wells located approximately 2,700 feet south of Matthiessen and Hegeler. Two of these wells are new wells that were put

in operation in 1993. The six wells range in depth from 61 feet to 70 feet and utilize the sand and gravel aquifer. In 1993 they supplied a total of 1.013 billion gallons of water. The city of Peru (population 10,886) obtains its water from four wells located approximately one and eight tenths miles west-southwest of the site. These wells range in depth from 2,591 feet to 2,764 feet and draw water from the St. Peter sandstone and in 1992 produced a total of 893 million gallons of water. The town of Peru contracts with Total Environmental Service Technologies, a privately owned company, to operate the city water and wastewater treatment plant. Neither Peru or La Salle supply water outside their municipal boundaries, according to their water operators. Oglesby (population 3,979) is approximately 3.1 miles south-southeast and has two wells that are 2,795 and 2,812 feet deep. The village of North Utica (population 1,067) is approximately 3.5 miles east and has two wells: well 1 is 618 feet deep and is cased to 175 feet and well 2 is 1078 feet deep and cased to 192 feet.

The estimated population potentially using groundwater around the Matthiessen and Hegeler Zinc Company facility is:

Distance (miles)	Potential Population
0 to 1/4	21
>1/4 to 1/2	8
>1/2 to 1	9,953
>1 to 2	8,563

>2 to 3	3,120
>3 to 4	5,517

The above figures were estimated from the number of wells in each distance ring and the population served by each and by counting houses in rural areas on USGS topographic quadrangle maps and multiplying by the average persons per household in La Salle county according to the 1990 Census.

5.3 SURFACE WATER

No surface water samples were collected during the December 14 and 15, 1993 Integrated Site Assessment inspection of the Matthiessen and Hegeler Zinc Company site. Much of the property contains rugged terrain with large piles of slag and demolition debris. Offsite drainage is into the Little Vermilion River either through direct runoff or from water entering into the remaining section of the old city of La Salle sewer that crosses the property in a west to east direction. Sediment samples collected along an approximately 1,600 feet segment of the Little Vermilion River indicate that there are a number of contaminants including pesticides, tentatively identified compounds and metals that have the potential to adversely impact the river.

According to Illinois Environmental Protection Agency files there are no known surface drinking water intakes located along the 15-mile downstream surface water route from the facility. The site contains two pathways by which drainage can enter surface water. Portions of the site slope

towards the east and drainage would follow natural pathways to the Little Vermillion River located adjacent to the site on the east. Also the city of La Salle has an old abandoned and collapsed storm sewer line running across the property with an outlet that forms a small brook that flows approximately 200 feet into the river. During the Site Reconnaissance visit and inspection water was observed flowing into the river. The Little Vermillion River flows south into the Illinois River and the 15-mile downstream surface water route includes approximately 1.2 miles in the Little Vermillion River and approximately 13.8 miles in the Illinois River, which flows west. According to National Wetland Inventory maps there are approximately 0.4 miles of wetland frontage along the Little Vermillion River and Approximately 16.9 miles along the Illinois River. The Illinois Department of Conservation states beyond the 15-mile streampath are located the Lake DePue Fish and Wildlife Area and the Spring Lake Heron Colony which provides breeding habitat for the state endangered Great Egret. Both the Little Vermilion and Illinois Rivers are classified as fishing streams by the Illinois Department of Conservation. According to the Flood Insurance Rate Map for the City of La Salle the area along the Little Vermilion River is in the 100 year floodplain and the rest of the site lies outside the 500 year flood plain.

5.4 AIR PATHWAY

No documented releases to the air were observed in the breathing zone during the CERCLA Integrated Site Assessment inspection. HNU photo-ionization readings with a 10.2 eV lamp were taken while collecting soil sample X102 at the site of the old coal gasification plant but no readings over background were detected. Further readings at other sampling points were not taken due to rain and concerns that the instrument could become damaged. However, the potential exists that particulates could become airborne from dried materials in the soil, slag and rubble piles. The estimated population within a four mile radius of the site is:

Distance (miles)	Population
Onsite	1,712
0 to 1/4	2,396
>1/4 to 1/2	3,895
>1/2 to 1	3,268
>1 to 2	6,039
>2 to 3	7,936
>3 to 4	2,221

5.5 SOIL EXPOSURE PATHWAY

Soil samples collected during the Integrated Site Assessment inspection document areas of observed contamination that are attributable to the site. Matthiessen

and Hegeler Zinc Company is a defunct business but there are two active manufacturing concerns on the property. Slag and demolition piles are in a fenced area where people are not authorized to trespass but holes in the fence allow entry. The site is not in a high traffic area and access to Carus Chemical Company and La Salle Rolling Mills is limited to controlled gates. The Little Vermillon River forms a natural barrier on the east side but the property is not patrolled by a guard and during times when there are no workers at the Carus Chemical Company or La Salle Rolling Mills the site is accessible to trespassers. This was evident during the inspection when a hunter was observed walking on the Matthiessen and Hegeler property. The nearest private residences are onsite and located adjacent to the Matthiessen and Hegeler property on the west and south sides and were found to have heavy metal contamination. Also the nearest school is onsite located approximately 800 feet west of the facility boundaries and a daycare facility located onsite approximately 2,500 feet northwest of the facility boundary were found to contain elevated levels of cadmium and lead. The proximity of the Little Vermillion River and nearby residences make the site attractive to nearby residents, especially children. The estimated population within a one mile radius of the site is:

Distance (miles)	Population
Onsite	1,712

0 to 1/4	2,396
>1/4 to 1/2	3,895
>1/2 to 1	3,268

The above figures were estimated from USGS topographic quadrangle maps and the persons per household for La Salle county. Illinois Department of Conservation records indicate that there are no known terrestrial sensitive areas located onsite or within a half mile radius of the facility. According to wetland inventory maps the nearest documented wetlands consists of approximately 3.0 acres classified as Excavated Intermittently Exposed Pulustrine with an Unconsolidated Bottom in the Carus Chemical Company treatment pond and approximately 6.0 acres of Temporarily Flooded Broad-leaved deciduous Forested Pulustrine wetlands adjacent to the site along the Little Vermilion River. The total wetlands within a half mile of the site consists of:

Distance (miles)	Number of acres
Onsite	3
0 to 1/4	12
>1/4 to 1/2	5

SUPPORTING DOCUMENTS
Table of Contents

SDMS US EPA REGION V
FORMAT- OVERSIZED - 5
IMAGERY INSERT FORM

The item(s) listed below are not available in SDMS. In order to view original document or document pages, contact the Superfund Records Center.

SITE NAME	**MATTHIESEN & HEGELER ZINC**		
DOC ID #	**146316**		
DESCRIPTION OF ITEM(S)	**MAPS**		
REASON WHY UNSCANNABLE	**_X_ OVERSIZED**	**OR**	**___ FORMAT**
DATE OF ITEM(S)	**1966-1993**		
NO. OF ITEMS	**2**		
PHASE	**SAS**		
PRP	**RMD - MATTHIESEN & HEGELER ZINC**		
PHASE (AR DOCUMENTS ONLY)	**___ Remedial ___ Removal ___ Deletion Docket ___ AR** **___ Original ____ Update # ___ Volume ____ of ___**		
O.U.			
LOCATION	**Box # ____ Folder # ____ Subsection _C3____**		
COMMENT(S)			
APPENDIX A - SITE 4-MILE RADIUS MAP **APPENDIX B - SURFACE WATER ROUTE MAP**			

APPENDIX A

SITE 4-MILE RADIUS MAP

MATTHIESSEN AND HEGELER ZINC COMPANY

APPENDIX B

SURFACE WATER ROUTE MAP

MATTHIESSEN AND HEGELER ZINC COMPANY

APPENDIX C

U.S. EPA FORM 2070-13

MATTHIESSEN AND HEGELER ZINC COMPANY

Site Inspection Report

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILO 000E4782

II. SITE NAME AND LOCATION

01 SITE NAME	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
MATTHIESSEN AND HEGELER ZINC COMPANY	PARTS OF SECTIONS 10, 11, 14 & 15, T33N, R1E

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST.
LA SALLE	IL	61301	LA SALLE	099	IL-14

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
---.-	---.-	☒ A. PRIVATE ☐ B. FEDERAL _____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER _____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
12, 14, 93 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1858 (BEGINNING YEAR) | 1978 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☒ E. STATE ☐ F. STATE CONTRACTOR _____ (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO
ROBERT CASPER	EPS	IEPA	(217) 782-6761
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO
SCOTT DAULS	EPS	IEPA	(217) 782-6761
PETER SORENSEN	EPS	IEPA	(217) 782-6761
MARK WAGNER	EPS	IEPA	(217) 782-6761
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
CYNTHIA CARUS	OWNER, LA SALLE ROLLING MILL	1375 9TH STREET, LASALLE	( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	7:35 AM	40°F, LIGHT RAIN

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency or Organization)	03 TELEPHONE NO
		( )

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
ROBERT CASPER	IEPA	RAMS/BOL	217-782-6761	8, 29, 94 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	IL D000647942

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)
- [X] A. SOLID
- [ ] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER _____ (Specify)
- [ ] E. SLURRY
- [ ] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)
- TONS _____
- CUBIC YARDS _____
- NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)
- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [X] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	METHYLENE CHLORIDE	75-09-2	SOIL	130	PPB
OCC	2-METHYLNAPHTHALENE	91-57-6	SOIL	3400	PPB
OCC	FLUORANTHENE	206-44-0	SOIL	3900	PPB
PSD	PENTACHLOROPHENOL	87-86-5	SOIL	36,000	PPB
OCC	PHENANTHRENE	85-01-8	SOIL	5400	PPB
OCC	PYRENE	129-00-0	SOIL	4000	PPB
OCC	BENZO (a) PYRENE	50-32-8	SOIL	1200	PPB
PSD	TOXAPHENE	8001-35-2	SOIL	810	PPB
PSD	AROCLOR-1254	11097-69-1	SOIL	1500	PPB
OCC	2PENTANONE, 4HYDROXY-4METHYL	123-42-2	SOIL	60,000	PPB
MES	ARSENIC	7440-38-2	SLAG PILE	110	PPM
MES	CADMIUM	7440-43-9	SOIL	1320	PPM
MES	COPPER	7440-50-8	SLAG PILE	4340	PPM
MES	LEAD	7439-92-1	SOIL	4310	PPM
MES	MERCURY	7439-97-6	SOIL	56	PPM
MES	ZINC	7440-66-6	SLAG PILE	42,000	PPM

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

IEPA FILES

LAB RESULTS OF INSPECTION SAMPLES COLLECTED 12-14&15-94

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: IL
02 SITE NUMBER: ILD 000064742

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 26903
02 [ ] OBSERVED (DATE _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

ALL DRINKING WATER IN THE AREA IS OBTAINED FROM GROUNDWATER. LA SALLE PUBLIC WELLS LOCATED APPROXIMATELY 3700 FEET SOUTH.

01 [X] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 0
02 [ ] OBSERVED (DATE _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

NO KNOWN SURFACE WATER INTAKES LOCATED WITHIN 15 MILES DOWNSTREAM.

01 [X] C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

NONE

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE _____) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

NONE

01 [X] E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE 12-15-94) [ ] POTENTIAL [X] ALLEGED
04 NARRATIVE DESCRIPTION

CONTAMINATION FOUND IN OFFSITE SAMPLES IN RESIDENTIAL SOIL.

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE _____) [ ] POTENTIAL [X] ALLEGED
04 NARRATIVE DESCRIPTION

CONTAMINATION FOUND IN ONSITE AND OFFSITE SAMPLES

01 [X] G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 26903
02 [ ] OBSERVED (DATE _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

ALL DRINKING WATER IN THE AREA IS OBTAINED FROM GROUNDWATER. LA SALLE PUBLIC WELLS ARE LOCATED APPROXIMATELY 3700 FEET SOUTH.

01 [X] H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 200
02 [ ] OBSERVED (DATE _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

LA SALLE ROLLING MILLS AND CARUS CHEMICAL COMPANY EACH HAVE APPROXIMATELY 100 EMPLOYEES. BOTH COMPANIES ARE ON PROPERTY THAT WAS ONCE PART OF THE MATTHIESSEN AND HEGELER SITE.

01 [ ] I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE _____) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

CONTAMINATION FOUND IN RESIDENTIAL SOILS.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: ILD 000 654 782

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

NONE

01 ☐ K DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Also include number of dead animals)

NONE

01 ☐ L CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

NONE

01 ☒ M UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids/Leaking drums) — 02 ☐ OBSERVED (DATE _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

SLAG PILES COULD WASH INTO THE LITTLE VERMILION RIVER

01 ☒ N DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☒ ALLEGED
04 NARRATIVE DESCRIPTION

CONTAMINATION FOUND IN OFFSITE SOIL SAMPLES IN RESIDENTIAL YARDS.

01 ☐ O CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

NONE

01 ☐ P ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

NONE

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

NONE

III. TOTAL POPULATION POTENTIALLY AFFECTED: 26903

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA FILES
OBSERVATIONS AND LAB RESULTS OF 12-10+15-93 SITE INSPECTION.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	IL0000604172

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☒ J. NONE				SITE CLOSED IN 1978.

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☒ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCINERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify) _____

05 OTHER

- ☐ A. BUILDINGS ON SITE

DEMOLISHED

06 AREA OF SITE

160 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

SLAG PILE IS ALONG THE LITTLE VERMILION RIVER. STEEP BANK OF PILE COULD ALLOW SLAG WASTES TO FALL INTO RIVER

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☒ NO

02 COMMENTS

SITE HAS FENCING BUT NO GUARD. TRESPASSERS WERE OBSERVED DURING SITE VISITS.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA FILES.

IEPA RECON VISIT AND SITE INSPECTION.

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILD 000064782

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY	SURFACE	WELL	02 STATUS			03 DISTANCE TO SITE
			ENDANGERED	AFFECTED	MONITORED	
COMMUNITY	A. ☐	B. ☒	A. ☒	B. ☐	C. ☐	A. .7 (mi)
NON-COMMUNITY	C. ☐	D. ☒	D. ☒	E. ☐	F. ☐	B. .9 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING; COMMERCIAL, INDUSTRIAL, IRRIGATION ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER	03 DISTANCE TO NEAREST DRINKING WATER WELL
26903	.7 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
20 (ft)	EAST	20 (ft)	(gpd)	☐ YES ☒ NO

09 DESCRIPTION OF WELLS

LA SALLE WELLS USE SAND & GRAVEL AQUIFER, ARE APPROX. 60' DEEP, 3700' SO. OF SITE

PERU - USE ST. PETER SANDSTONE, ARE APPROX 2600' DEEP, 2 MILES WEST-SOUTHWEST

10 RECHARGE AREA		11 DISCHARGE AREA	
☐ YES ☐ NO	COMMENTS	☐ YES ☐ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE

☒ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
LITTLE VERMILION RIVER	☐	0 (mi)
ILLINOIS RIVER	☐	1.2 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 10081 (NO. OF PERSONS)	B. 15283 (NO. OF PERSONS)	C. 23,560 (NO. OF PERSONS)

02 DISTANCE TO NEAREST POPULATION: .01 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
	(mi)

05 POPULATION WITHIN VICINITY OF SITE

TOWNS WITHIN 4-MILE RADIUS INCLUDE LA SALLE (9,717), PERU (10,586), OGELSBY (3,979) AND NORTH UTICA (1,067) AND RURAL RESIDENCES

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILD 000064782

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE

☐ A. 10^{-6} – 10^{-8} cm/sec ☒ B. 10^{-4} – 10^{-6} cm/sec ☐ C. 10^{-4} – 10^{-3} cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK

☐ A. IMPERMEABLE ☒ B. RELATIVELY IMPERMEABLE ☐ C. RELATIVELY PERMEABLE ☐ D. VERY PERMEABLE

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
65 (ft)	UNKNOWN (ft)		

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
3.75 (in)	2.9 (in)	0-30 %	EAST	%

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS

ESTUARINE	OTHER
A _____ (mi)	B 0 (mi)

12 DISTANCE TO CRITICAL HABITAT

_____ (mi)

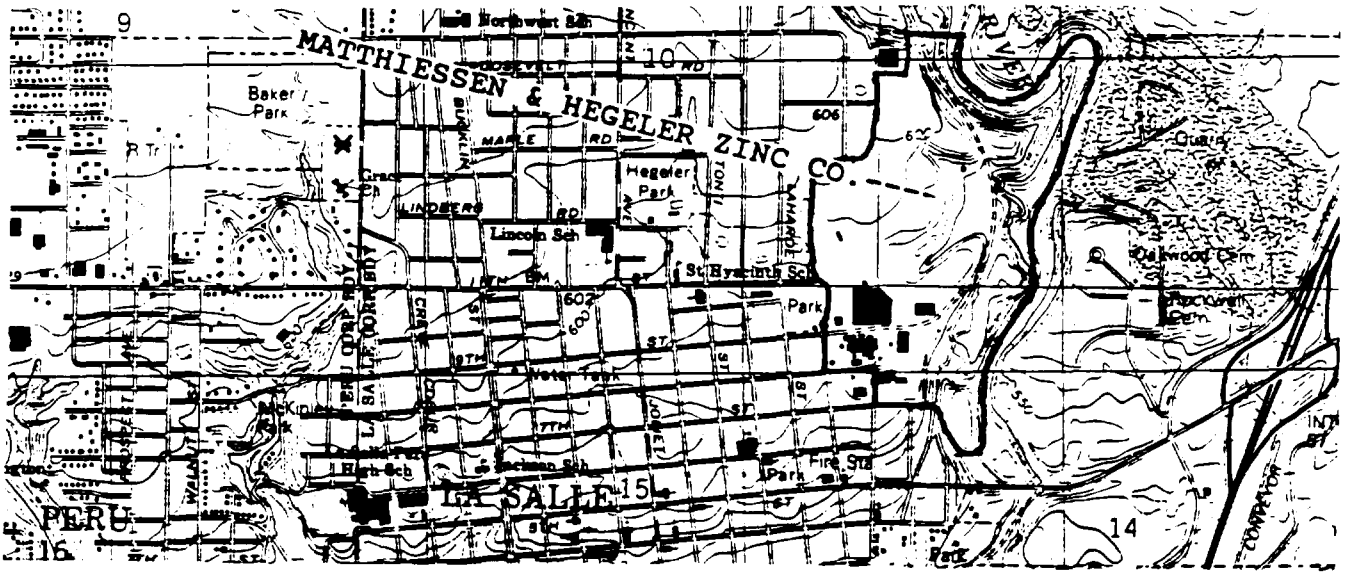
ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A 0 (mi)	B .01 (mi)	C _____ (mi)	D .4 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



VII. SOURCES OF INFORMATION

IEPA FILES
WELL LOGS OF THE LA SALLE AREA
ILL. DEPARTMENT OF CONSERVATION
FIRM FLOOD MAP

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	ILD 000 654 7x3

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	25	IEPA LAB - SPRINGFIELD (ORGANICS) IEPA LAB - CHAMPAIGN (INORGANICS)	2-94
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	NO READING OVER BACKGROUND

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL — 02 IN CUSTODY OF IEPA (NAME OF INVESTIGATOR OR REPOSITORY)

03 MAPS	04 LOCATION OF MAPS
☒ YES ☐ NO	IEPA

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

IEPA INSPECTION OF 12-14+15-94

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	ILD 00006478-

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
FRED + CYNTHIA CARUS		LA SALLE ROLLING MILLS 1375 NINTH STREET		LA SALLE	IL	61301
CARUS CHEMICAL CO.		1500 EIGHTH STREET		LA SALLE	IL	61301

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA FILES

IEPA SITE RECON AND INTERVIEW

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILD 000064782

II. CURRENT OPERATOR

01 NAME	02 D+B NUMBER
CLOSED FACILITY	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA FILES

HISTORICAL PLAT MAPS AND SANBORN MAPS.

SITE REPRESENTATIVE INTERVIEWS (LASALLE ROLLING MILLS AND CARUS CHEMICAL COMPANY)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	ILD 000 064 746

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
CLOSED FACILITY	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA FILES

IEPA SITE RECON VISITS

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILO 000064782

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ D. SPILLED MATERIAL REMOVED 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ F. WASTE REPACKAGED 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ H. ON SITE BURIAL 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ L. ENCAPSULATION 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ N. CUTOFF WALLS 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION N/A	02 DATE	03 AGENCY
01 ☐ Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION N/A	02 DATE	03 AGENCY

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	ILD 000806782

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ S CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ T BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ U GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ V BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ W GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ X FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Y LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Z AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 1 ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 2 POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 3 OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NONE

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA FILES

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER
IL | ILD 000614478

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

NONE

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA FILES

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
IL	IL0000614782

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

N/A

III. SOURCES OF INFORMATION

IEPA FILES

APPENDIX D

TARGET COMPOUND LIST

MATTHIESSEN AND HEGELER ZINC COMPANY

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chlorde	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroehtene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl) Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether
Hexachlorobutadiene	Anthracene

2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Ideno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

Inorganic Target Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobolt	Vanadium
Copper	Zinc
Iron	Cyanide
Lead	Sulfide
Magnesium	

DATA QUALIFIERS

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
U	Compound was tested for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by two, to account for the fact that only half of the extract is recovered.	Analyte was analyzed for but not detected.
J	Estimated value. Used when estimating a concentration for tentatively identified compounds (TICS) where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria and the result is less than the sample quantitation limit but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
C	This flag applies to pesticide results where the identification is confirmed by GC/MS.	Method qualifier indicates analysis by the Manual Spectrophotometric method.
B	Analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	The reported value is less than the CRDL but greater than the instrument detection limit (IDL).
D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor as in the "E" flag, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values are flagged with the "D" flag.	Not used.
E	Identifies compounds whose concentrations exceed the calibration range for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses must be reported on separate Forms I. The Form I for the diluted sample must have the "DL" suffix appended to the sample number.	The reported value is estimated because of the presence of interference.
A	This flag indicates that a TIC is a suspected aldol concentration product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA).
M	Not used.	Duplicate injection (a QC parameter not met).

N	Not used	Spiked sample (a QC parameter not met).
S	Not used.	The reported value was determined by the Method of Standard Additions (MSA).
W	Not used.	Post digestion spike for Furnace AA analysis (a QC parameter) is out of control limits of 85% to 115% recovery, while sample absorbance is less than 50% of spike absorbance.
*	Not used.	Duplicate analysis (a QC parameter not within control limits).
+	Not used.	Correlation coefficient for MSA (a QC parameter) is less than 0.995.
P	Not used.	Method qualifier indicates analysis by ICP (Inductively Coupled Plasma) Spectroscopy.
CV	Not used.	Method qualifier indicates analysis by Cold Vapor AA.
AV	Not used.	Method qualifier indicates analysis by Automated Cold Vapor AA.
AS	Not used.	Method qualifier indicates analysis by Semi-Automated Cold Spectrophotometry.
T	Not used.	Method qualifier indicates Titrimetric analysis.
NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.
R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.

SDMS US EPA REGION V

COLOR-RESOLUTION - 2

IMAGERY INSERT FORM

The following page(s) of this document include color or resolution variations. Unless otherwise noted, these pages are available in monochrome. The original document is available for viewing at the Superfund Records Center.

SITE NAME	MATTHIESEN & HEGELER ZINC
DOC ID #	146316
DESCRIPTION OF ITEM(S)	SITE PHOTOGRAPHS / MAPS
PRP	RMD - MATTHIESEN & HEGELER ZINC
DOCUMENT VARIATION	_X_ COLOR **OR** ___ RESOLUTION
DATE OF ITEM(S)	1988 - 1993
NO. OF ITEMS	28
PHASE	SAS
OPERABLE UNITS	
LOCATION	Box #__ Folder #___ Subsection _C3___
PHASE (AR DOCUMENTS ONLY)	___ Remedial ___ Removal ___ Deletion Docket ___Original ___ Update # ___ Volume ___ of ___

COMMENT(S)

APPENDIX E - LOCATION MAPS & SITE PHOTOGRAPHS

APPENDIX E

IEPA SITE PHOTOGRAPHS

MATTHIESSEN AND HEGELER ZINC COMPANY

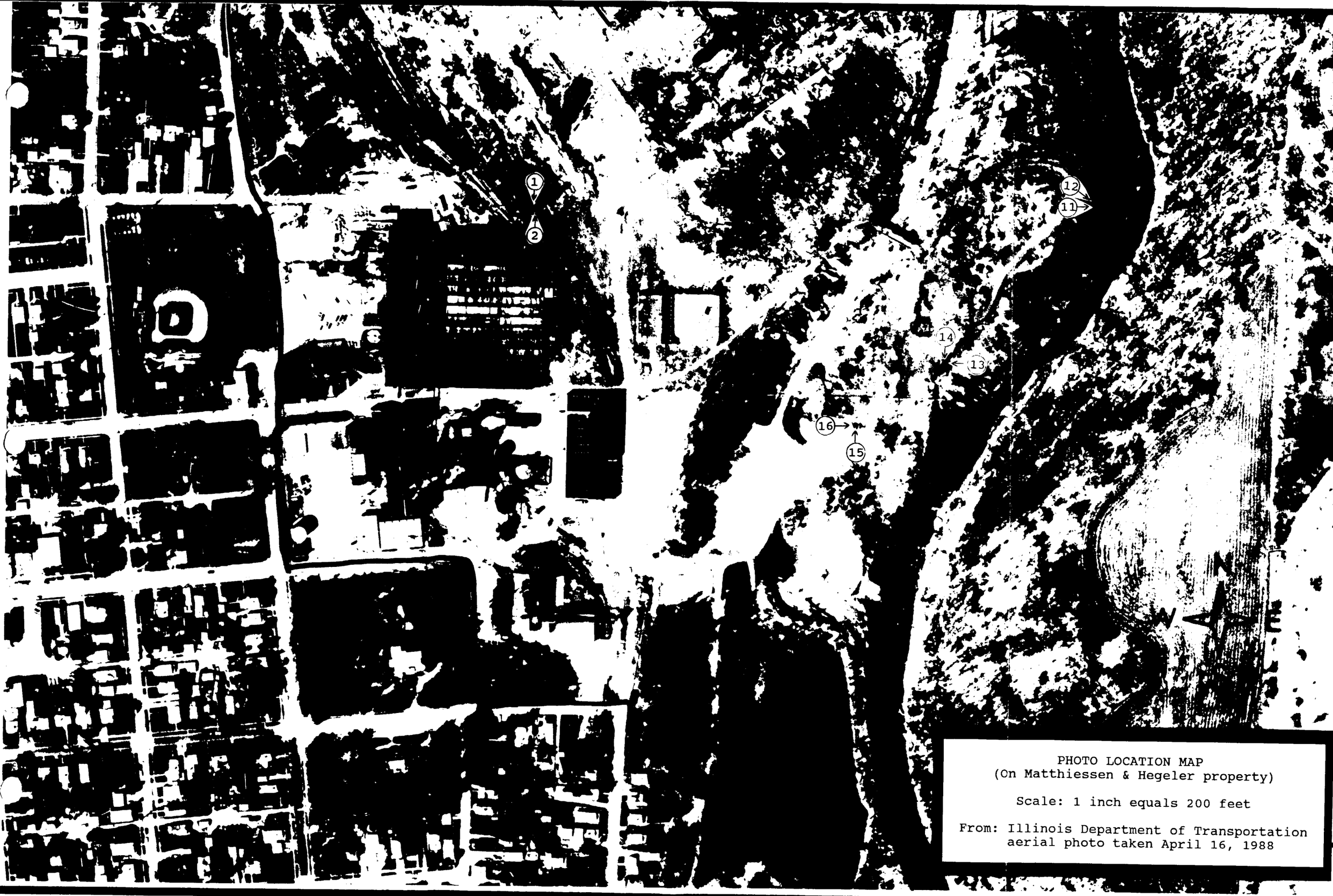


PHOTO LOCATION MAP
(On Matthiessen & Hegeler property)

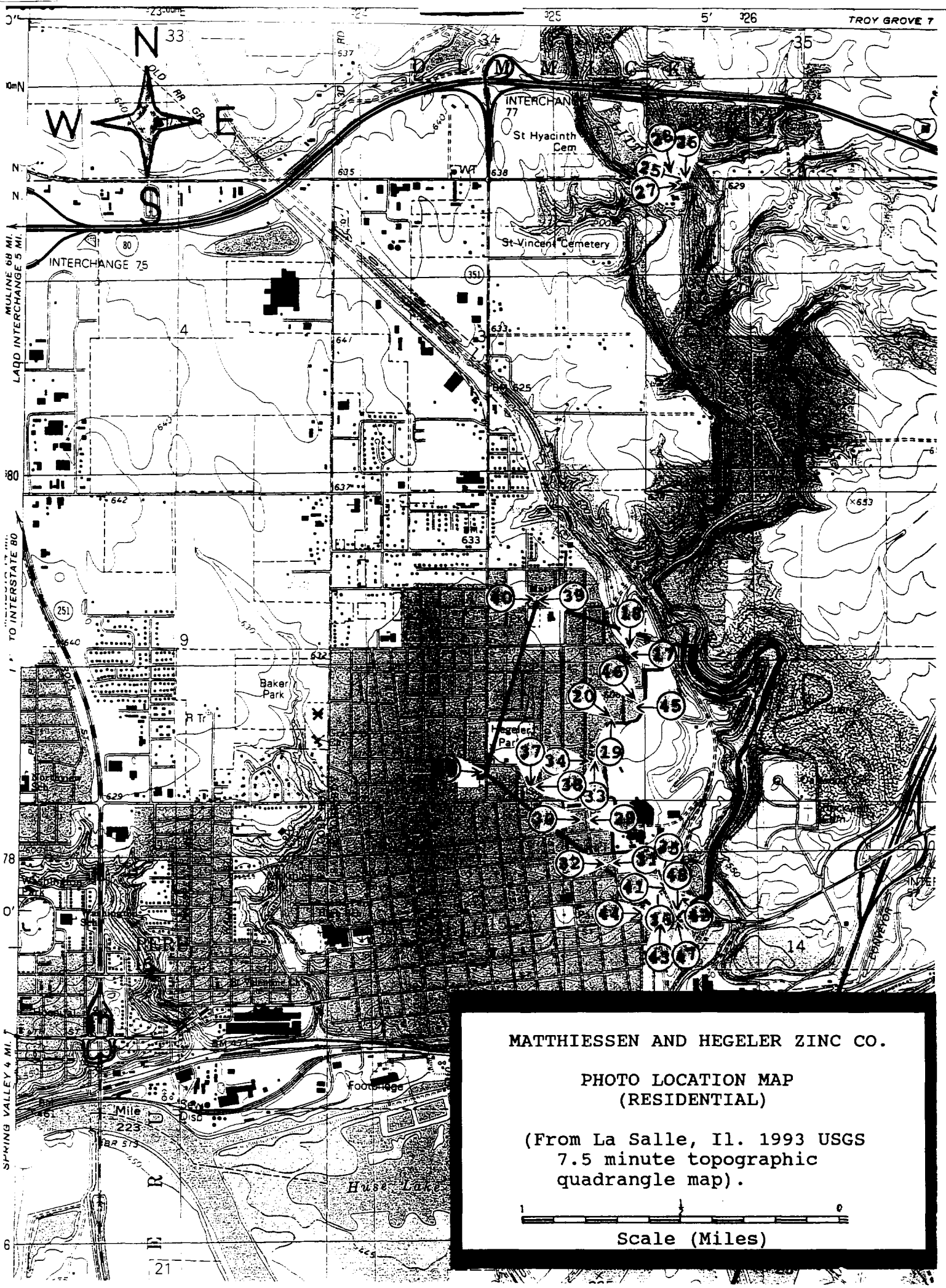
Scale: 1 inch equals 200 feet

From: Illinois Department of Transportation
aerial photo taken April 16, 1988

PHOTO LOCATION MAP
(On Matthiessen & Hegeler property)

Scale: 1 inch equals 200 feet

From: Illinois Department of Transportation
aerial photo taken April 16, 1988


TROY GROVE 7
INTERCHANGE 77
St Hyacinth Cem
St Vincent Cemetery
INTERCHANGE 75
MULINE 68 MI.
LAQD INTERCHANGE 5 MI.
TO INTERSTATE 80
SPRING VALLEY 4 MI.
Baker Park
Hegeler Park
Washington Park
Footbridge
Mile 223
Huse Lake
MATTHIESSEN AND HEGELER ZINC CO.
PHOTO LOCATION MAP
(RESIDENTIAL)
(From La Salle, Il. 1993 USGS 7.5 minute topographic quadrangle map).
Scale (Miles)

DATE: December 14, 1993

TIME: 9:35 AM

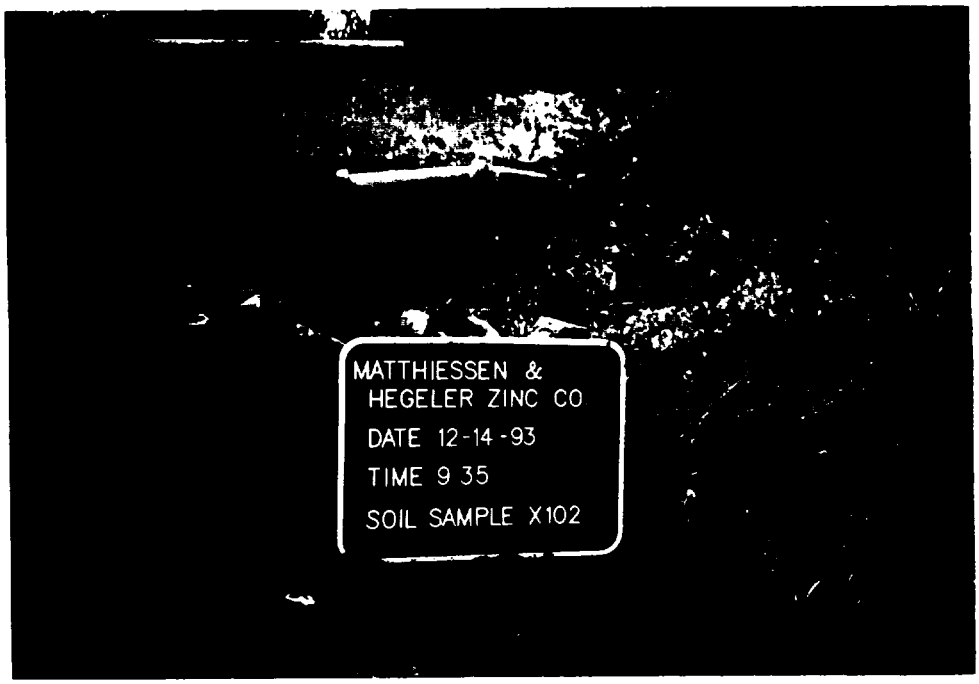
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 1

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Sample X102 was collected near the site of a coal gas plant. The gas plant building is no longer standing and its use was discontinued prior to 1916.



DATE: December 14, 1993.

TIME: 9:35AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 2
LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the North.

Sample X102 was collected at a depth of 12 to 18 inches.

)ATE: December 14, 1993

TIME: 12:25 AM

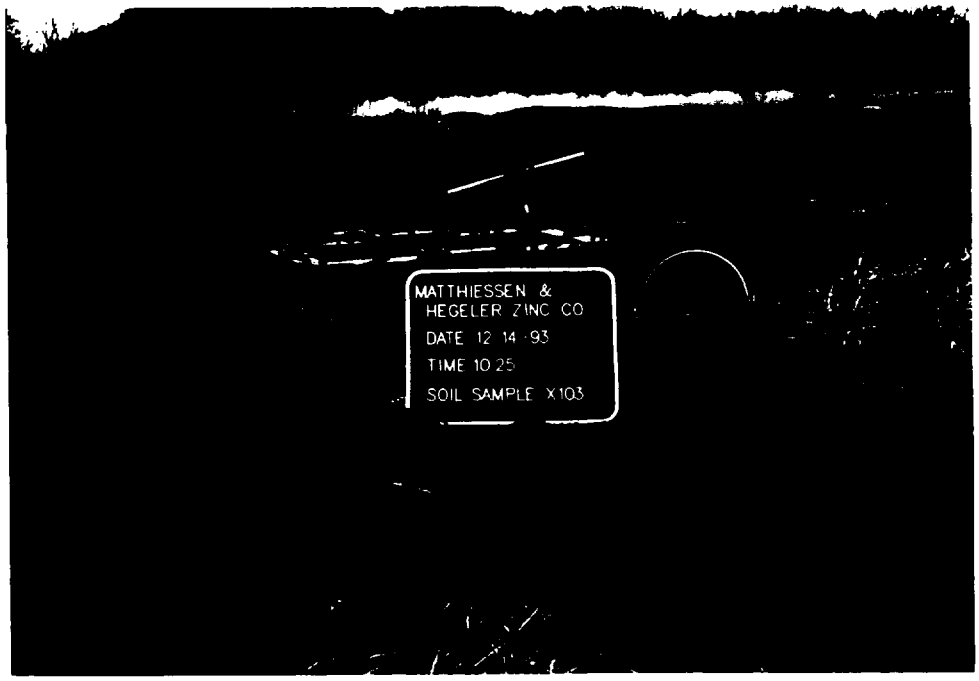
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 3

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Sample X103 was collected approximately 217 feet north of the old pottery works. Area is covered with a fine coal-like substance.



DATE: December 14, 1993

TIME: 10:25 AM

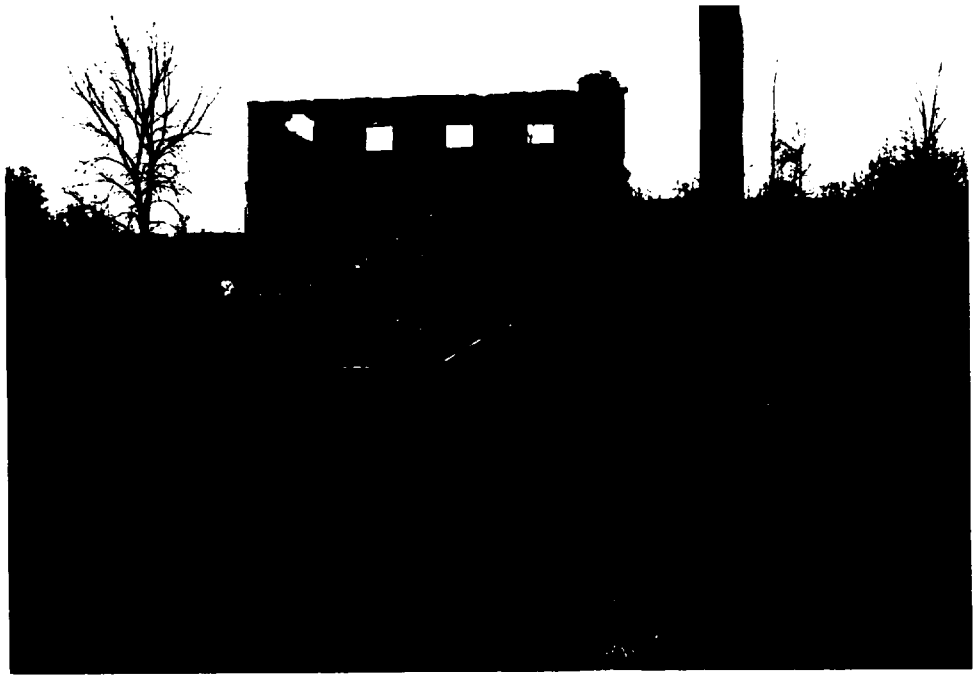
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER 4

LOCATION: L 0990300031
La Salle Co.
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Sample X103. The remains of the old pottery works is in the background.



DATE: December 14, 1993

TIME: 11:30 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 5

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Sample X202 and duplicate sample X203 were collected in a wetland area along the Little Vermilion river. The ditch at the top left leads into an old city sewer outfall. Drainage from some of the site enters the river via this outlet.

DATE: December 14, 1993

TIME: 11:30 AM

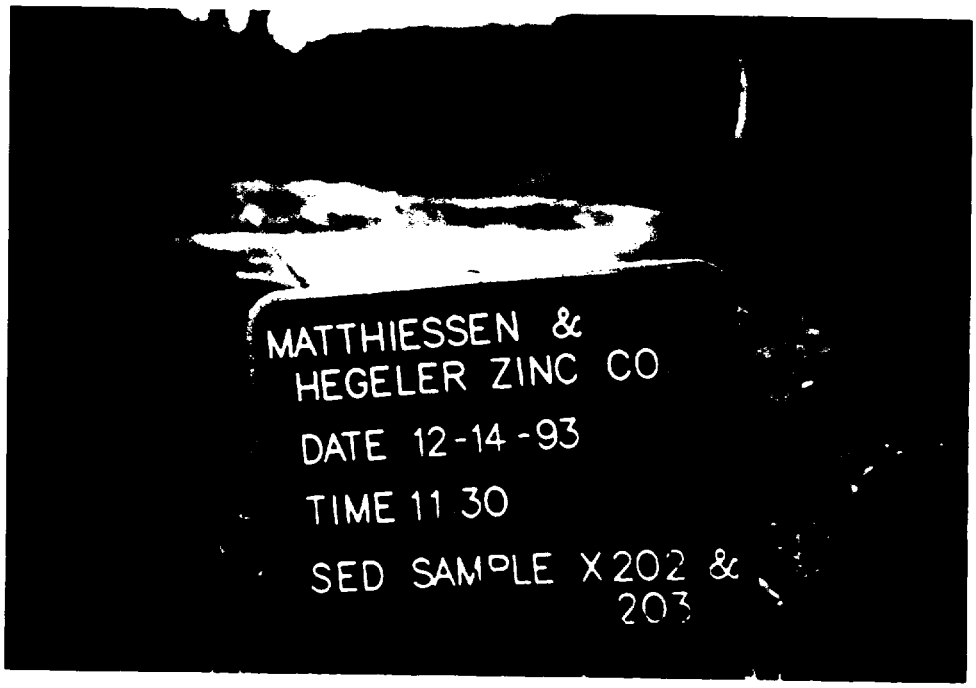
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 6

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
south.

Samples X202 and X203.



DATE: December 14, 1993

TIME: 11:45 AM

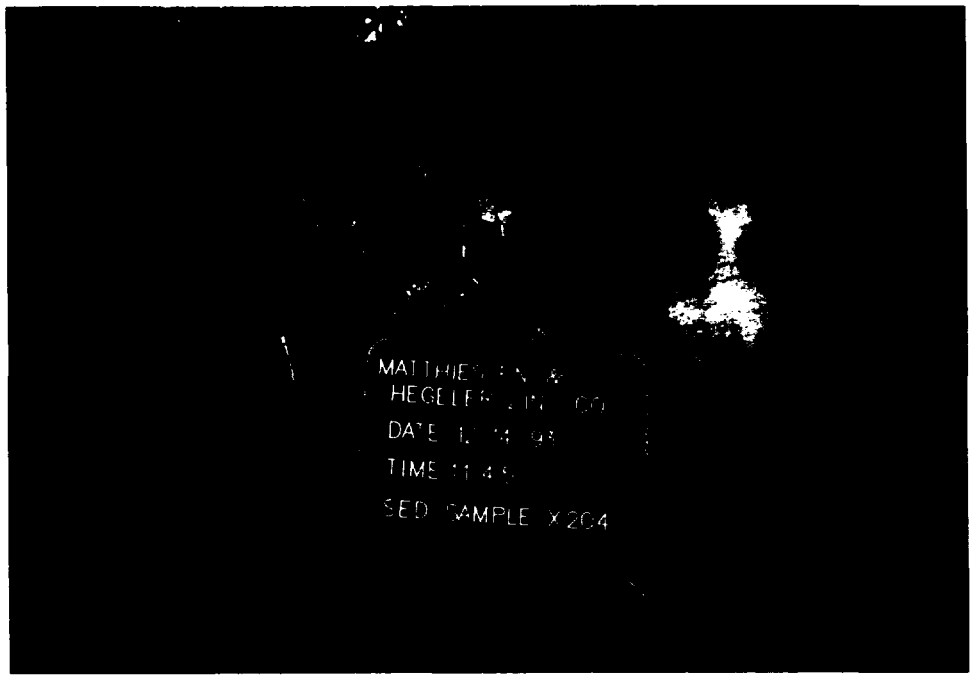
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 7

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Sample X204 collected
along the Little Vermilion
River in a wetland area.



DATE: December 14, 1993

TIME: 11:45 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 8

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Sample X204. The quarry of
Illinois Cement Co. lies
across the river.

'ATE: December 14, 1993

TIME: 12:00 PM

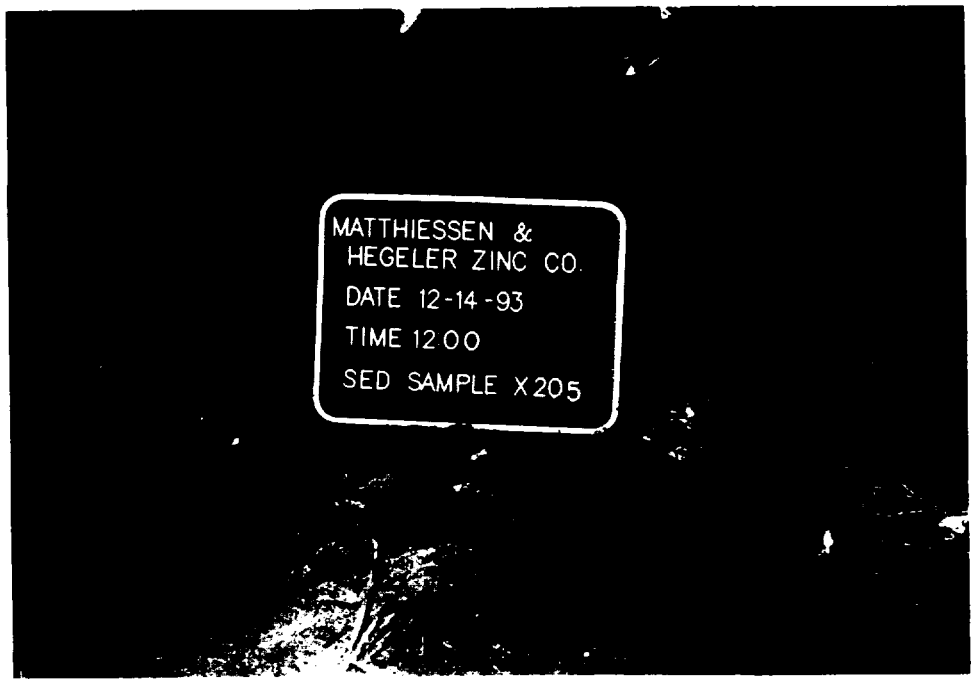
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 9

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Sample X205 was collected approximately 100 feet south of a bend in the Little Vermilion river at the northeast corner of the site.



DATE: December 14, 1993

TIME: 12:00 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 10

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Sediment sample X205 collected in the Little Vermilion River.

)ATE: December 14, 1993

TIME: 3:30 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 11

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Sample X106 was collected in the slag pile located along the west bank of the Little Vermilion River. Beyond the sign is a steep bank to the river.

DATE: December 14, 1993.

TIME: 3:30 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 12

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the southeast.

Sample location X106. The sampling depth was 2 to 8 inches.

DATE: December 14, 1993

TIME: 4:00 PM

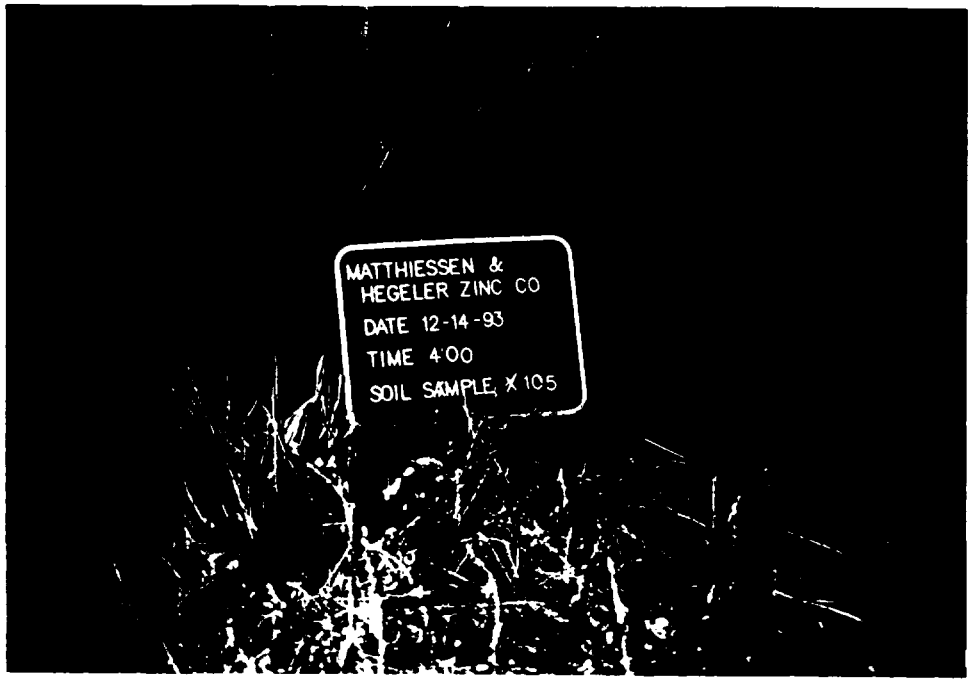
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 13

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the west.

Sample X105 collected from waste pile located along the west bank of the Little Vermilion River.



DATE: December 14, 1993

TIME: 4:00 PM

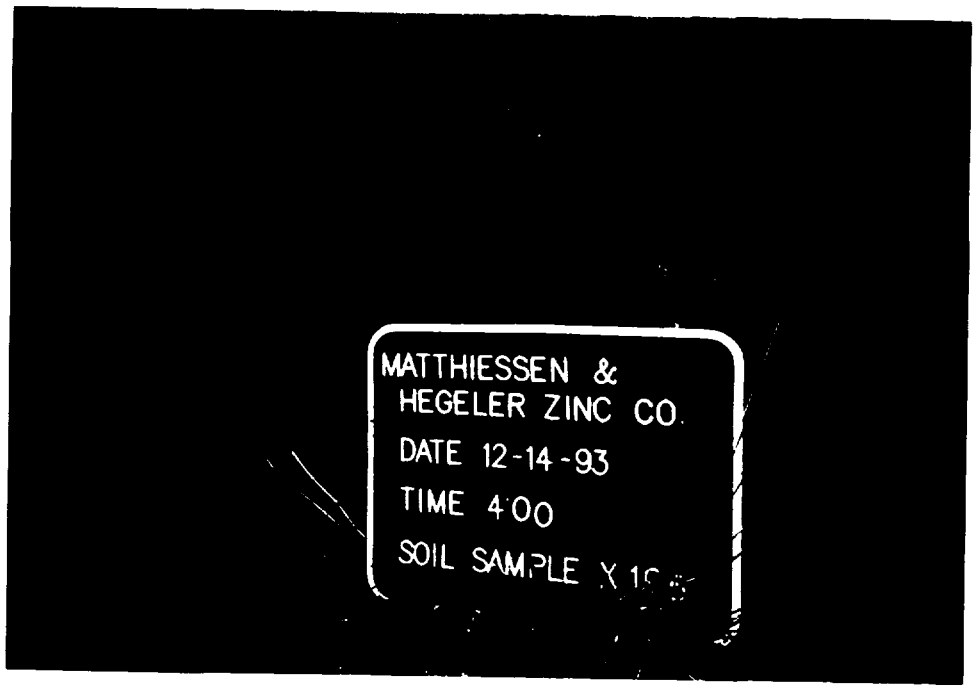
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 14

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Sample location X105. The sample was collected at a depth of 2 to 8 inches.



'ATE: December 14, 1993

TIME: 4:30 PM

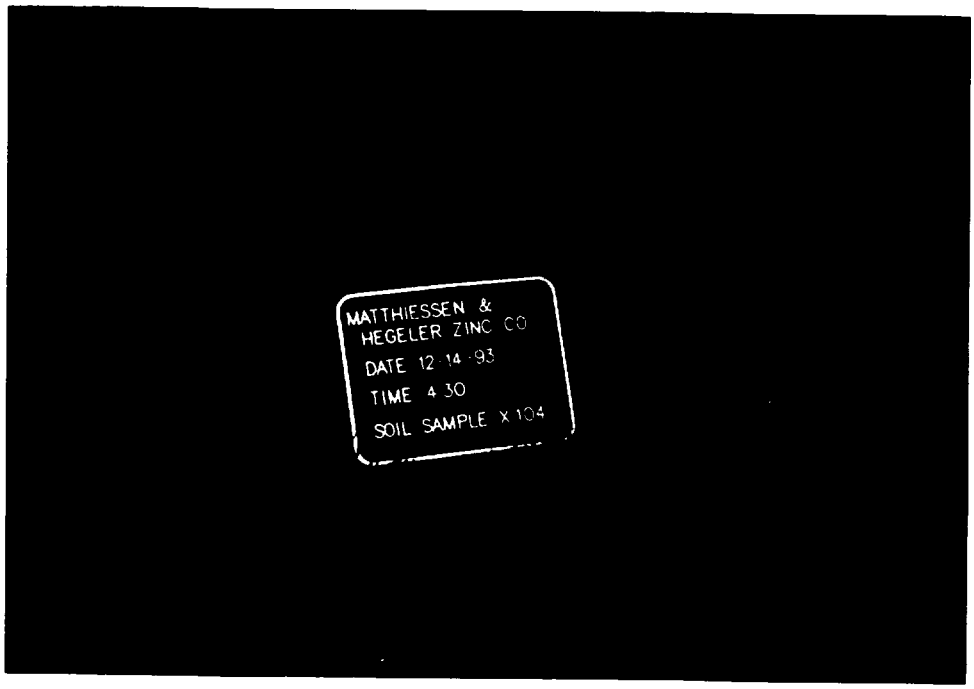
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 15

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Sample location X104.
Collected from the south
end of the waste pile
on the west side of the
Little Vermilion River.



DATE: December 14, 1993

TIME: 4:30 PM

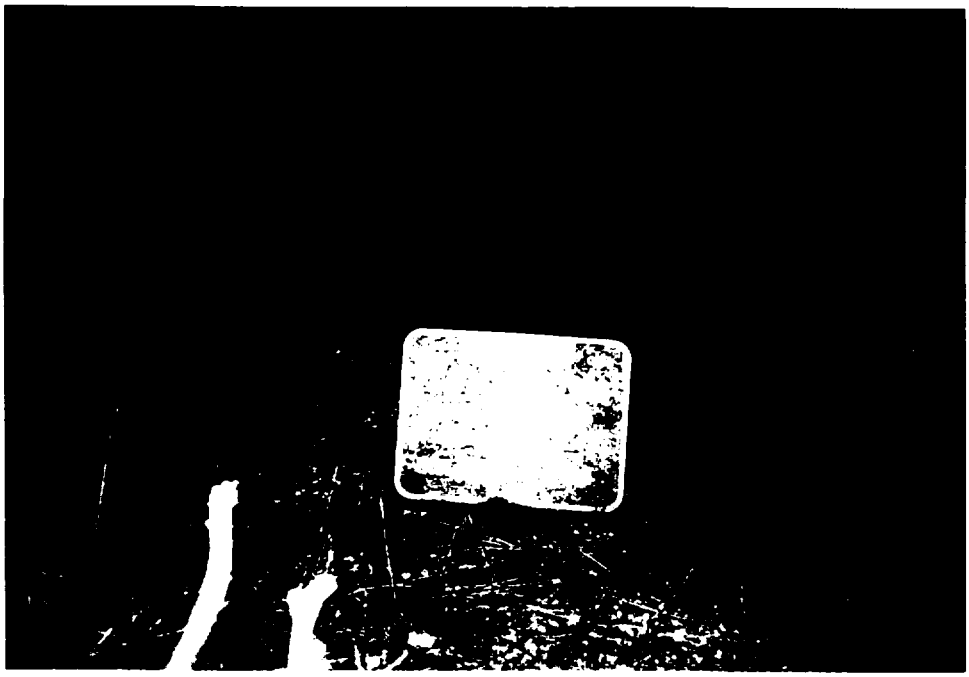
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 16

LOCATION: L 0990300031
La Salle Co.
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Sample location X104.
The sample was collected
at a depth of 2 to 8
inches.



)ATE: December 15, 1993

TIME: 8:10 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 17

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the west.

Soil sample X114 was collected offsite in the yard of a private residence located north-west of the site.

DATE: December 15, 1993

TIME: 8:10 AM

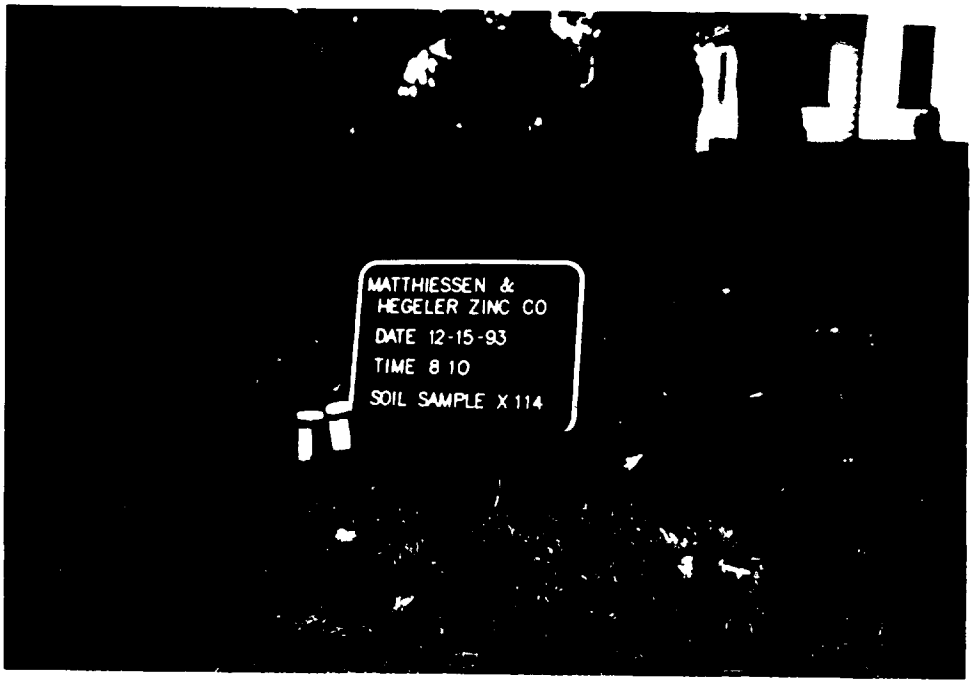
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 18

LOCATION: L 0990300031
La Salle Co.
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Offsite soil sample X114. Sample was collected at a depth of 0 to 1 inch.



)ATE: December 15, 1993

TIME: 8:25 AM

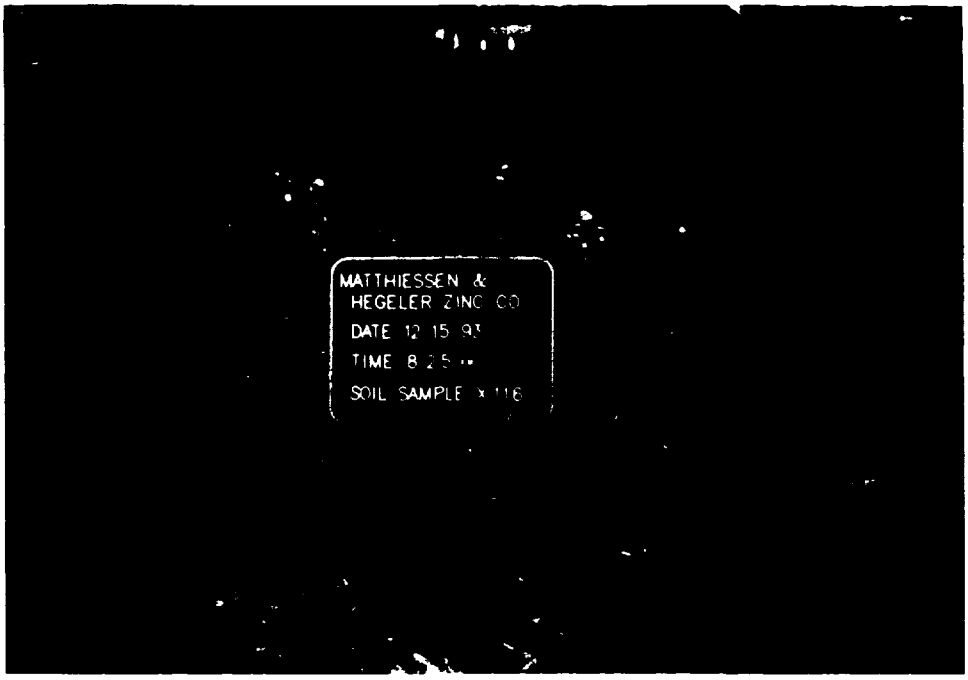
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 19

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Sample location X116.
This sample was collected
offsite at a private
residence located
approximately 600 feet
west of the acid tank
farm.



DATE: December 15, 1993

TIME: 8:25 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 20

LOCATION: L 0990300031
La Salle Co.
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the southeast.

Offsite residential soil
sample X116, collected
at a depth of 0 to 1
inch.

'ATE: December 15, 1993

TIME: 9:00 AM

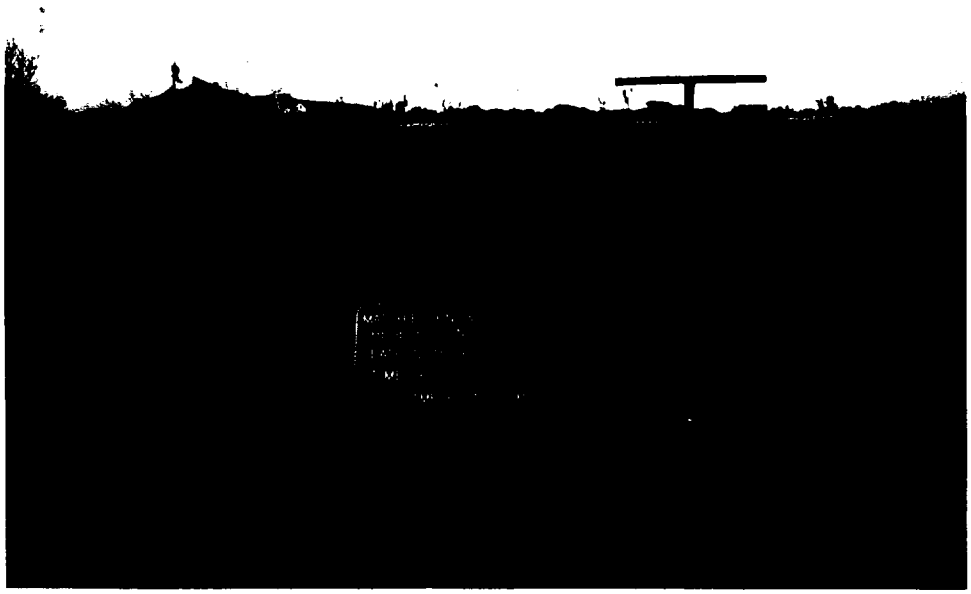
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 21

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Soil sample X107 and duplicate sample X108 collected seven and a half feet west of the foundation of large tank used to store sulfuric acid produced as a by-product of the zinc smeltering operation.



DATE: December 15, 1993

TIME: 9:00 AM

PHOTOGRAPH TAKEN BY:

Robert Casper

PHOTO NUMBER: 22

LOCATION: L 0990300031
La Salle Co.
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Soil sample X107 and duplicate X108 were obtained at a depth of 10 to 24 inches.

'ATE: December 15, 1993

TIME: 9:15 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 23

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Soil sample X109 was collected approximately 350 feet north of the acid tank foundations in an area containing badly rusted metal drums. The origin or original contents are unknown.

DATE: December 15, 1993

TIME: 9:15 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 24

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Sample X109 was collected at a depth of 2 to 5 inches.

)ATE: December 15, 1993

TIME: 10:50 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 25

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Background sediment sample X201 was collected in the Little Vermilion. River approximately 1.9 miles upstream of the Matthiessen and Hegeler property.

DATE: December 15, 1993

TIME: 10:50 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 26

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Background sample X201 was collected at a depth of 0 to 3 inches.

)ATE: December 15, 1993

TIME: 11:05 AM

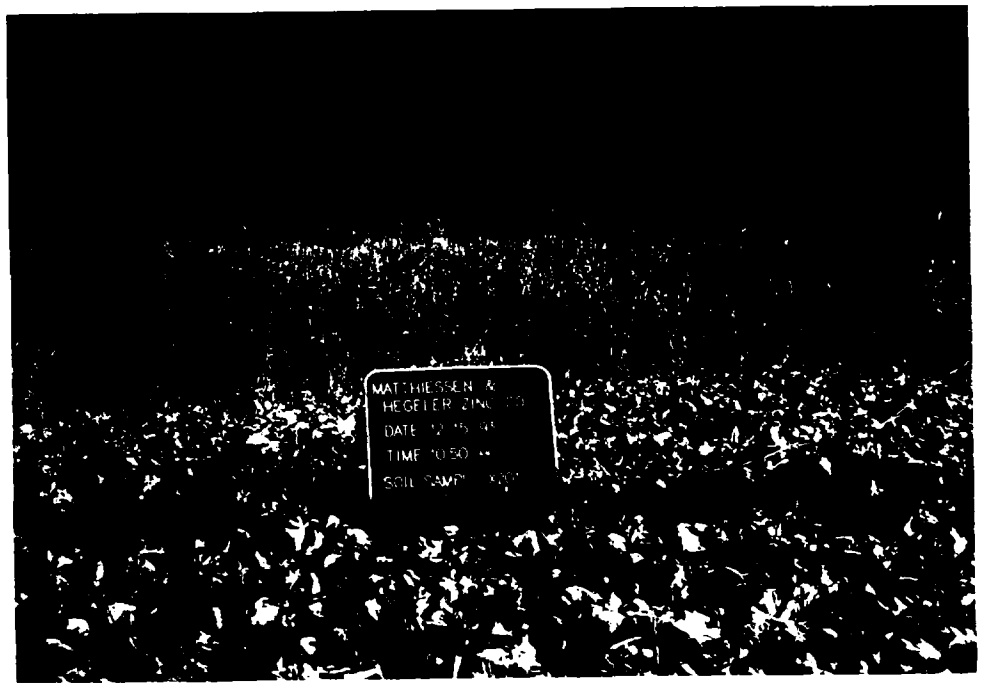
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 27

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Background soil sample X101 was collected approx. 1.9 miles north of the site. The information on the photo board was inadvertently not changed and should read "11:05 AM" and "X101".



DATE: December 15, 1993

TIME: 11:05 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 28

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Background soil sample X101 was collected at a depth of 2 to 4 inches. The information on the photo board was inadvertently not changed and should read "11:05 AM" and "X101".

DATE: December 15, 1993

TIME: 11:40 AM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 29

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the west.

Offsite soil sample X119 was collected in the yard of a private residence located approximately 450 feet west of the site.

DATE: December 15, 1993

TIME: 11:40 AM

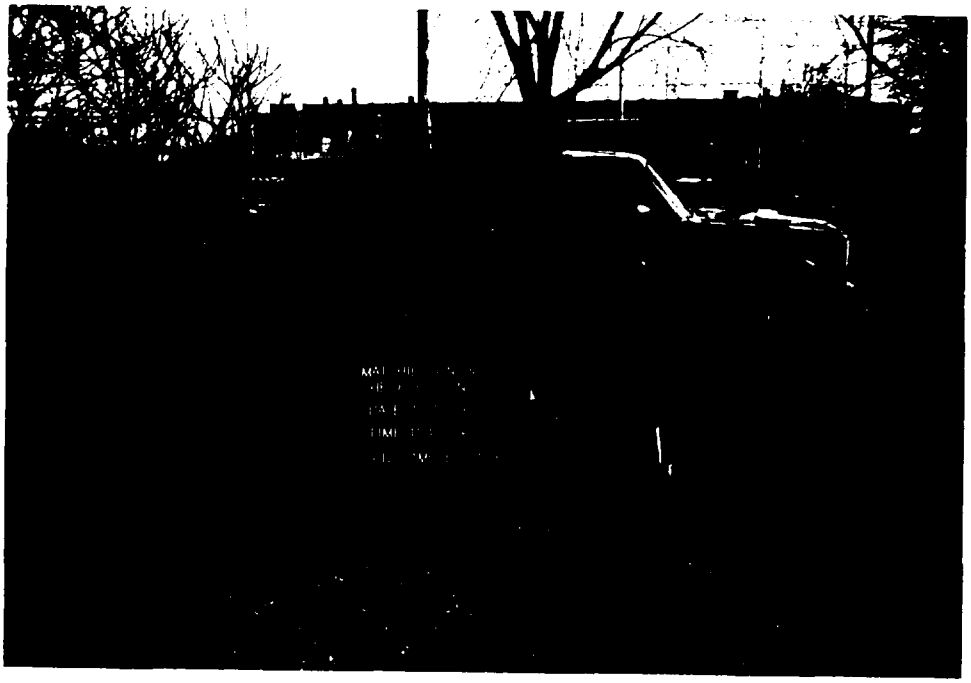
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 30

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Soil sample X119 was collected at a depth of 0 to 1 inch.



DATE: December 15, 1993

TIME: 12:05 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 31

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the west.

Offsite soil sample X120
collected across the
street from the site.

DATE: December 15, 1993

TIME: 12:05 PM

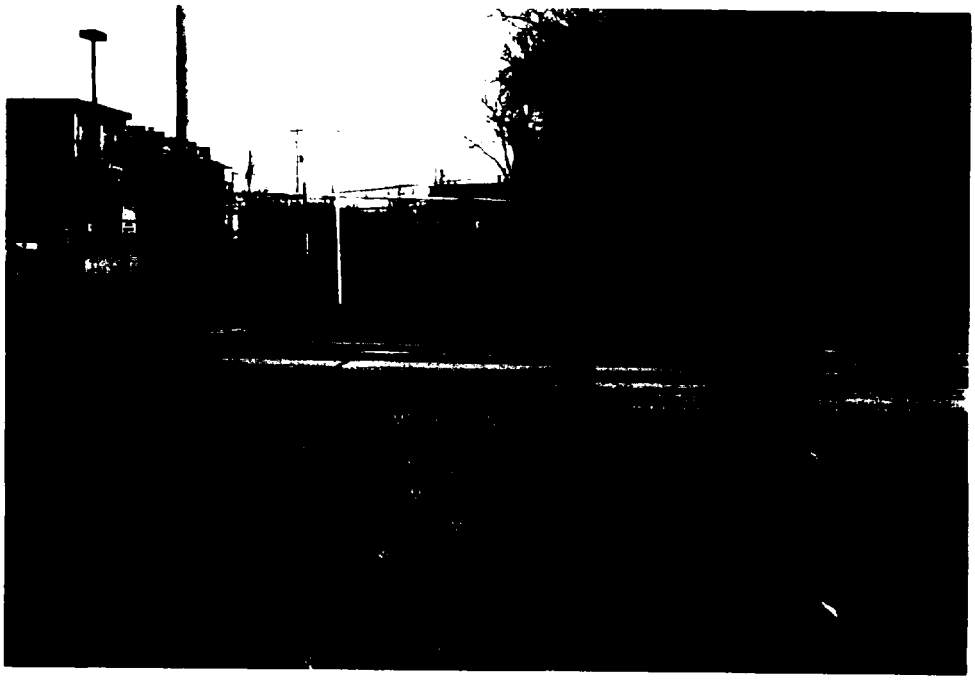
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 32

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Soil sample X120 was
collected at a depth of
0 to 1 inch. Across the
street is the entrance
to Carus Chemical
Company.



DATE: December 15, 1993

TIME: 12:15 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 33

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Offsite soil sample X117
collected across the
street from the site. The
field across the street
is part of the site.

DATE: December 15, 1993

TIME: 12:15 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 34

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Soil sample X117 was
collected at a depth of
0 to 1 inch. The building
at right is the old
engine house.

DATE: December 15, 1993

TIME: 12:50 PM

PHOTOGRAPH TAKEN BY:
Mark Wagner

PHOTO NUMBER: 35

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Offsite soil sample X121 collected at a residence located to the southwest of the site.

DATE: December 15, 1993

TIME: 12:50 PM

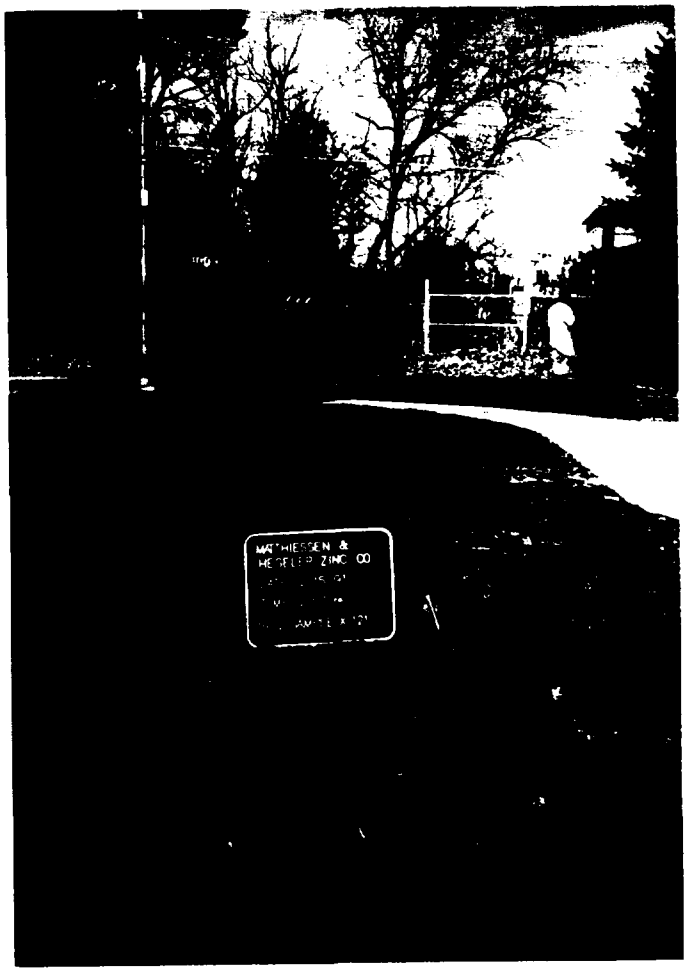
PHOTOGRAPH TAKEN BY:
Mark Wagner

PHOTO NUMBER: 36

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Soil sample X121 was collected at a depth of 0 to 1 inch. Some of the structures at Carus Chemical Company can be seen beyond the fence at upper right.



DATE: December 15, 1993

TIME: 1:10 PM

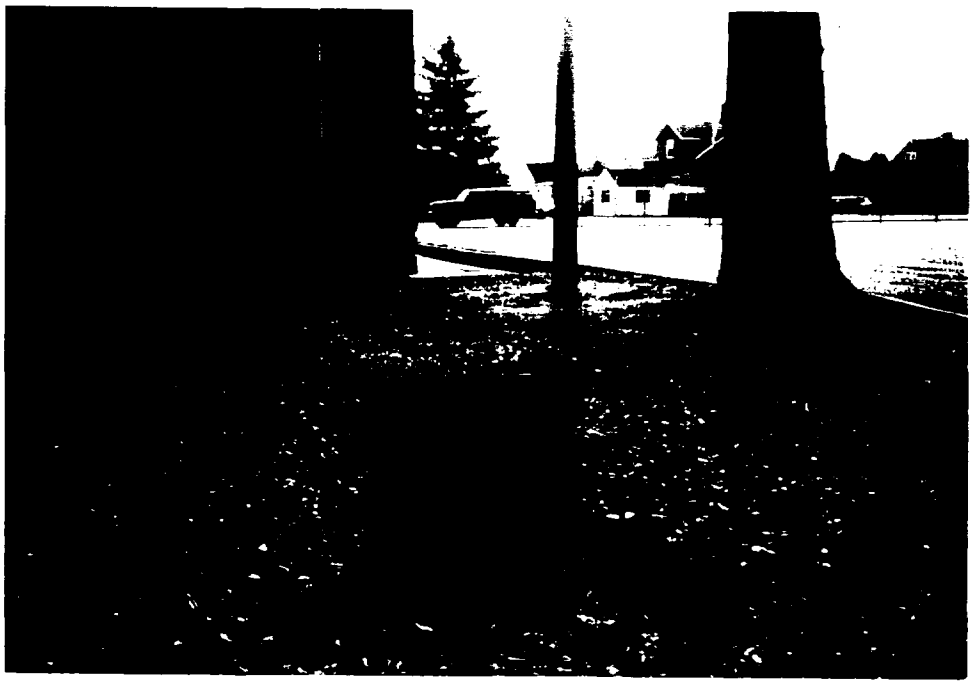
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 37

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Offsite soil sample X113 collected at St. Hyacinth School, Located approximately 1,300 feet west of the Matthiessen and Hegeler site.



DATE: December 15, 1993

TIME: 1:15 PM

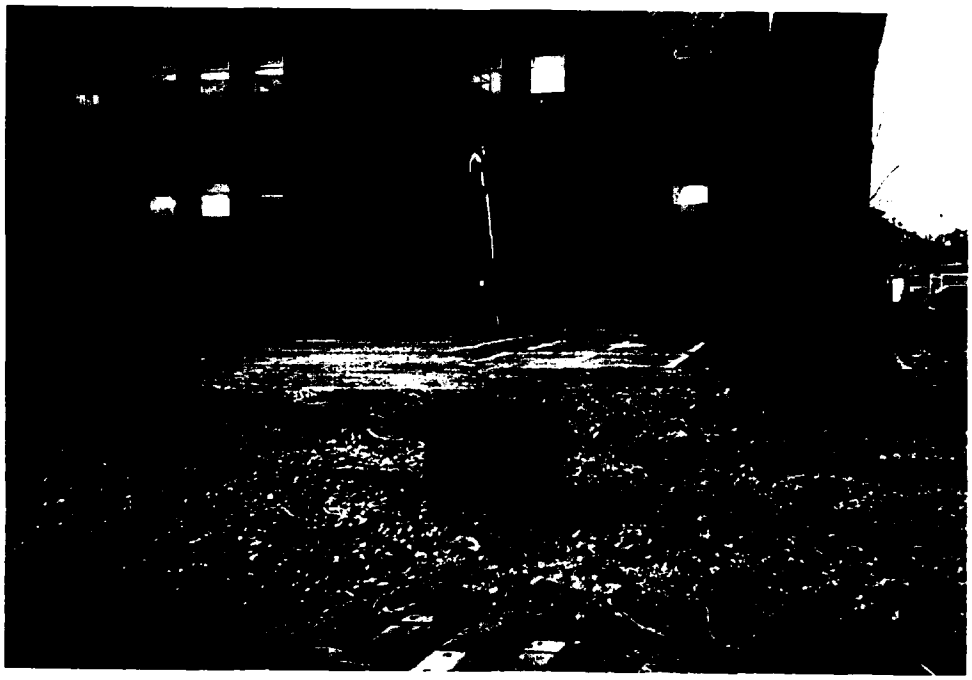
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 38

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the west.

Soil sample X113 was collected at a depth of 0 to 1 inch. St. Hyacinth School and playground are in the background.



DATE: December 15, 1993

TIME: 1:30 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 39

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the west.

Offsite soil sample X111 collected at a daycare center located approximately 2,400 feet northwest of the site. Matthiessen school in the background is no longer used for classes.

DATE: December 15, 1993

TIME: 1:30 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 40

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Soil sample X111 was collected at a depth of 0 to 1 inch. The daycare center is the building to the left.

DATE: December 15, 1993

TIME: 1:55 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 41

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Offsite soil sample X122
collected on Todd Street,
located along the south-
west portion of the site.

DATE: December 15, 1993

TIME: 1:55 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 42

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the northwest.

Soil sample X122 was
collected at a depth of
0 to 1 inch. Part of
Carus Chemical Co. lies
beyond the fence.

DATE: December 15, 1993

TIME: 2:15 PM

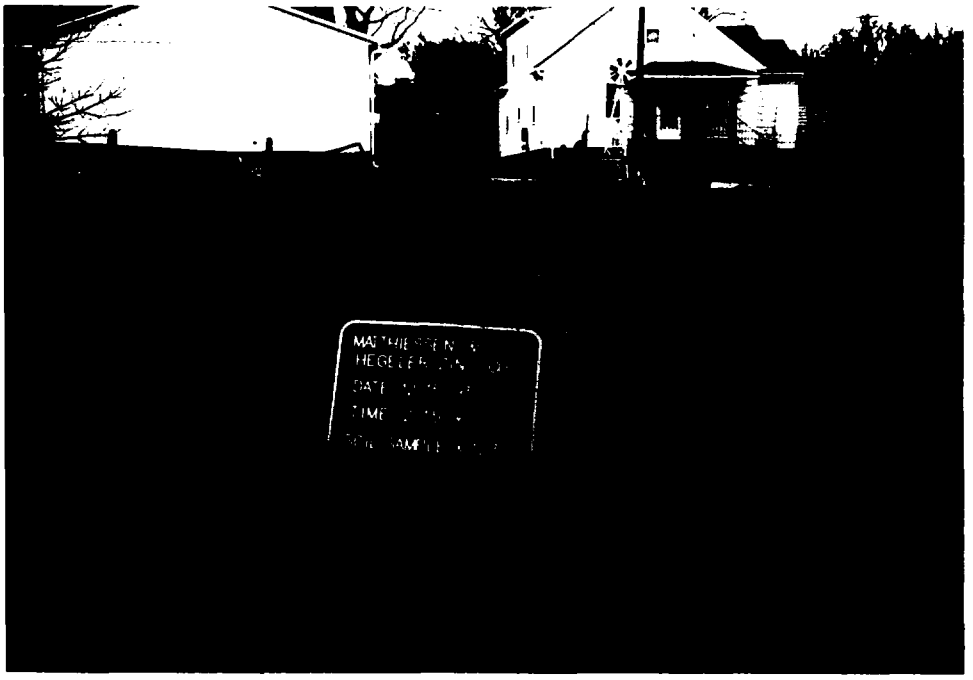
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 43

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Offsite soil sample X123
collected at a residence
on 5th Street located
approximately 500 feet
south of the site.



DATE: December 15, 1993

TIME: 2:15 PM

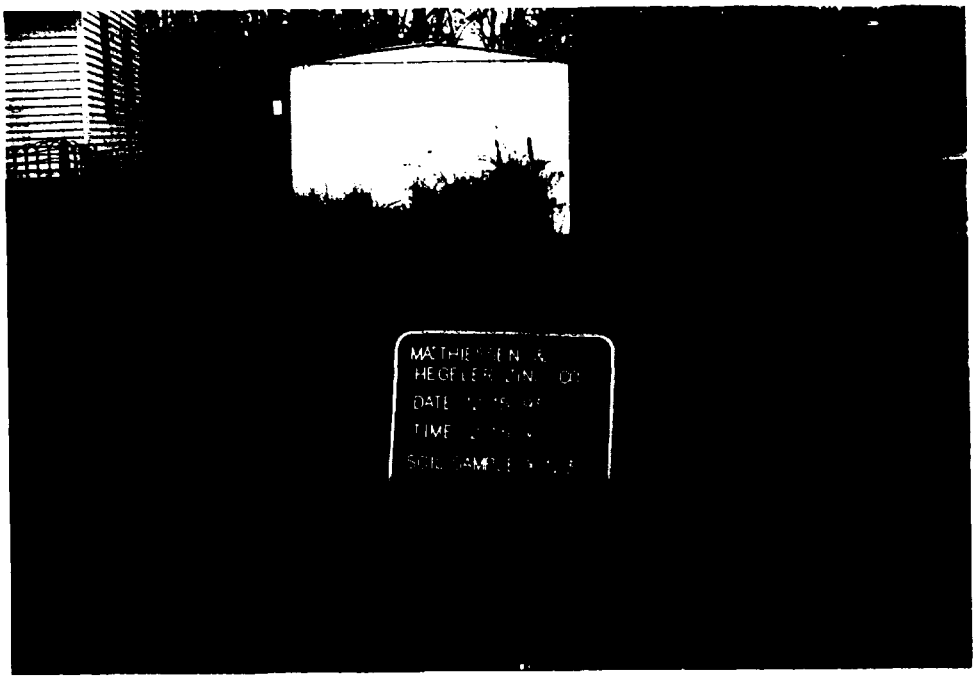
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 44

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Soil sample X123 was
collected at a depth of
0 to 1 inch.



DATE: December 15, 1993

TIME: 2:40 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 45

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the west.

Offsite soil sample X115
collected at a residence
on Zinc Street located
adjacent to the site on
the west.

DATE: December 15, 1993

TIME: 2:40 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 46

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the southeast.

Soil sample X115 was
collected at a depth of
0 to 1 inch. The site is
in the background.

DATE: December 15, 1993

TIME: 3:15 PM

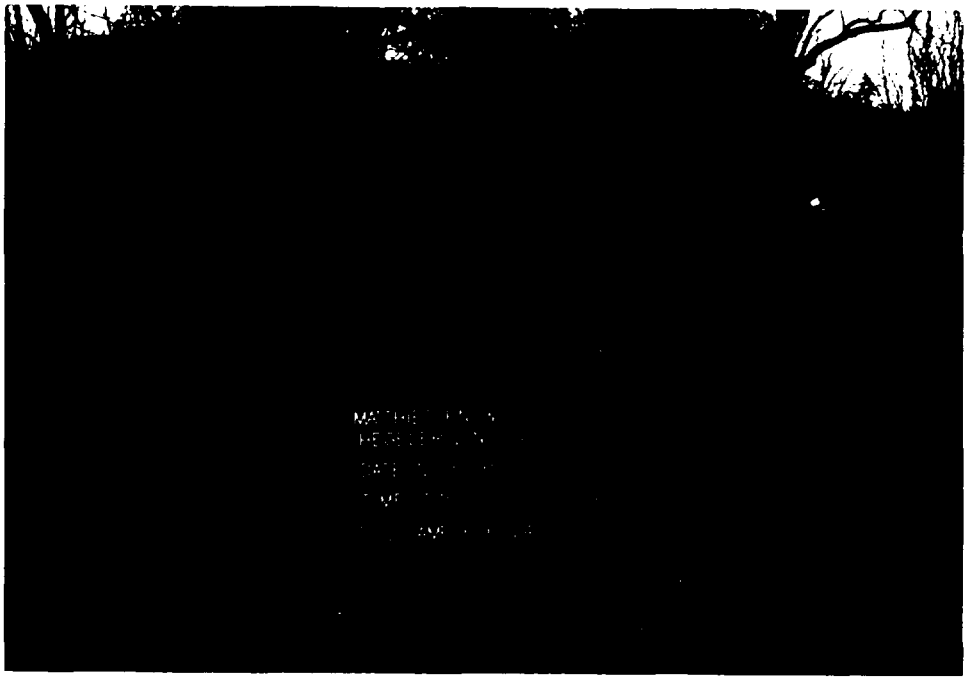
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 47

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the north.

Offsite soil sample X124
collected at a residence
on 5th Street located
approximately 350 feet
south of the site.



DATE: December 15, 1993

TIME: 3:15 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 48

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Soil sample X124 was
collected at a depth of
0 to 1 inch.

DATE: December 15, 1993

TIME: 3:50 PM

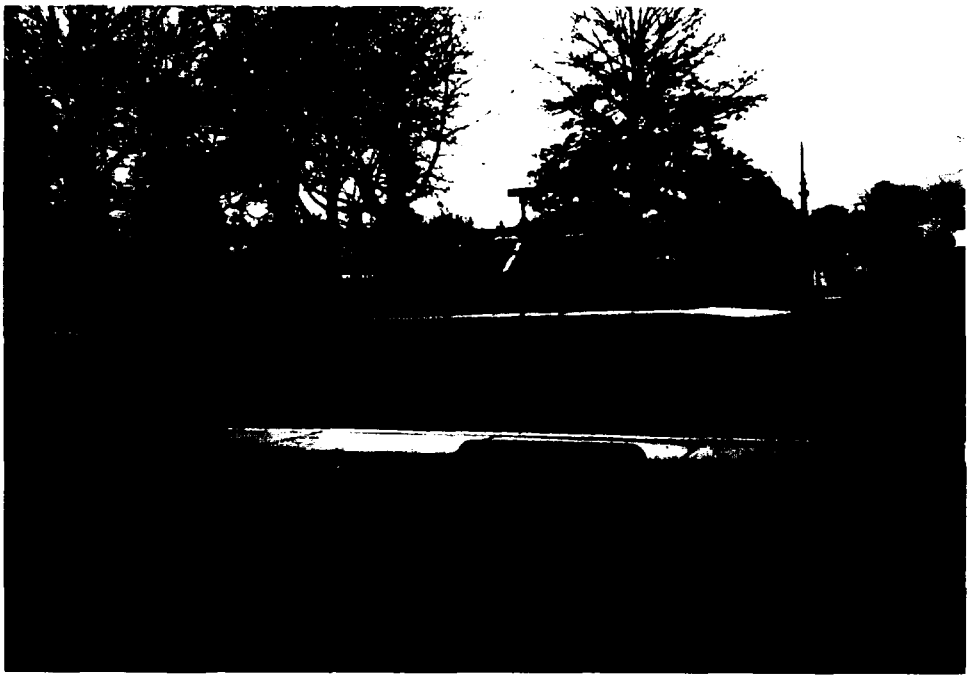
PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 49

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the east.

Offsite soil sample X112 collected at Lincoln School, located approx 2,000 feet west of the site along St. Vincent Avenue. Hegeler Park is located across the street.



DATE: December 15, 1993

TIME: 3:50 PM

PHOTOGRAPH TAKEN BY:
Robert Casper

PHOTO NUMBER: 50

LOCATION: L 0990300031
La Salle County
Matthiessen & Hegeler
ILO: 000064782

PICTURE TAKEN TOWARD
the south.

Soil sample X112 was collected at a depth of 0 to 1 inch.

APPENDIX F

ANALYTICAL RESULTS FROM IEPA COLLECTED SAMPLES

(See volume 2 of 2)

MATTHIESSEN AND HEGELER ZINC COMPANY